A. civ.
35
km

MODEL HOUSES
FOR THE
INDUSTRIAL CLASSES

B. FLETCHER

A. Cir.

35 Km

1916

Fletcher

MODEL HOUSES.

'Work on till every workman should have three good rooms, well ventilated and with light before and behind. These were the requirements which were necessary for a Christian and a civilised being. But until they could arrive at that, let them be content with something more humble. Anything that would moderate those evils, however humble it might be; anything that would deal with the miserable, disgusting, alarming condition—alarming in a physical, moral, and spiritual sense, as well as in a political sense—of hundreds and thousands of people in this great and wealthy metropolis, should be welcomed and encouraged. They could to a certain extent moderate these evils, and at least they could show to the people who were now seething in suffering, sorrow, and indignation, that they were going forward, under God's blessing, to do their best, according to their means, to improve their spiritual, their physical, and their religious condition.'

LORD SHAFTESBURY, K.G., *Speech at Society of Arts, April* 21, 1871.

'The improvement of the homes of the people lies at the very foundation of political and social progress.' J. H. STALLARD, M.B. LOND., M.R.C.P.L.

'The laws of health are closely allied to the laws of morality': and that knowledge which tends to render the home comfortable, the body vigorous, and the mind clear, is highly valuable in preparing the way for spiritual instruction.'

T. TWINING, *Vice-President of Society of Arts.*

'A clean, fresh, and well-ordered house exercises over its inmates a moral, no less than a physical influence, and has a direct tendency to make the members of the family sober, peaceable, and considerate of the feelings and happiness of each other; nor is it difficult to trace a connexion between habitual feelings of this sort and the formation of habits of respect for property, for the laws in general, and even for those higher duties and obligations the observance of which no law can enforce.'

DR. SOUTHWOOD SMITH.

MODEL HOUSES

FOR THE

INDUSTRIAL CLASSES.

BEING

A RECORD OF THE DEFECTS OF EXISTING MODEL LODGING HOUSES, AND OF REGISTERED DESIGNS FOR MODEL HOUSES FROM WHICH BUILDINGS HAVE BEEN ERECTED BY THE AUTHOR;

TOGETHER WITH

PLANS FOR THE ADAPTATION OF EXISTING DWELLING-HOUSES FOR LETTING IN FLATS.

to which are added

PRACTICAL HINTS TO INVESTORS IN SMALL HOUSE PROPERTY ON PURCHASING AND MANAGEMENT

AND

A REVIEW OF THE NECESSARY CLAUSES WHICH SHOULD BE CONTAINED IN A NEW ACT OF PARLIAMENT.

BY

BANISTER FLETCHER,

Associate of the Royal Institute of British Architects.

LONDON:

LONGMANS, GREEN, AND CO.

1871.

All rights reserved.

MODEL HOUSES

FOR THE

INDUSTRIAL CLASSES.

BEING

A REVIEW OF THE DEFECTS OF EXISTING MODEL LODGING-HOUSES, AND CONTAINING REGISTERED DESIGNS FOR MODEL HOUSES FROM WHICH BUILDINGS HAVE BEEN ERECTED BY THE AUTHOR:

TOGETHER WITH

REGISTERED PLANS FOR THE ADAPTATION OF EXISTING DWELLING-HOUSES FOR LETTING IN FLATS.

to which are added

MANY USEFUL HINTS TO INVESTORS IN SMALL HOUSE PROPERTY ON PURCHASING AND MANAGEMENT

AND

A GENERAL VIEW OF THE NECESSARY CLAUSES WHICH SHOULD BE CONTAINED IN A NEW ACT OF PARLIAMENT.

BY

BANISTER FLETCHER,

Associate of the Royal Institute of British Architects.

LONDON:

LONGMANS, GREEN, AND CO.

1871.

All rights reserved.

BIBLIOTHECA
REGIA
MONACENSIS

LONDON: PRINTED BY
SPOTTISWOODE AND CO., NEW-STREET SQUARE
AND PARLIAMENT STREET

PREFACE.

Often the subject treated of trenches so much on ground already occupied, that the author commences by an apology and explanation why he considered it desirable to publish his book. In the present instance, the reverse is the case: my work, at least, is new.

I have written as simply, and in as condensed a form, as possible, so that, by the very smallness of my book, I might tempt all to read, and thus diffuse my ideas and plans; confidently believing that if generally used for all new buildings for the industrial classes, and for the adaptation of existing houses, they would convert the wretched homes of the working people of London and our large towns into really healthy dwellings.

I would only add that the buildings which have been erected from the designs given in this book, much please both those who occupy, and those who go to criticise.

B. Fletcher.

24 Bedford Square: *April*, 1871.

CONTENTS.

PAGE

PREFACE V

CHAPTER I.

REVIEW OF THE EXISTING HOMES OF THE INDUSTRIAL CLASSES AND THEIR DEFECTS 1

CHAPTER II.

EXPLANATORY OF THE DESIGNS REGISTERED UNDER THE TITLE 'B. FLETCHER'S MODEL DWELLINGS FOR THE INDUSTRIAL CLASSES' —FOUR DIFFERENT PLANS AND ELEVATIONS GIVEN, AND COMPARISON MADE BETWEEN THEM AND OTHER EXISTING HOUSES . . 8

CHAPTER III.

DEFECTS OF ORDINARY HOUSES FOR LETTING OUT IN APARTMENTS OR FLATS—OBJECTIONS POINTED OUT 16

CHAPTER IV.

EXPLANATORY OF TWO DESIGNS REGISTERED UNDER THE TITLE 'B. FLETCHER'S MODEL PLAN FOR ADAPTATION OF DWELLING-HOUSES FOR LETTING IN FLATS' 22

CHAPTER V.

EXPLANATORY OF TWO MORE DESIGNS REGISTERED UNDER THE TITLE 'B. FLETCHER'S MODEL PLAN FOR ADAPTATION OF DWELLING-HOUSES FOR LETTING IN FLATS' 28

CHAPTER VI.

PAGE

SPECIFICATIONS FOR THE ADAPTATIONS DESCRIBED IN CHAPTERS IV. AND V. 31

CHAPTER VII.

SUGGESTIONS FOR THE CONVERSION OF THREE NARROW-FRONTED TENEMENTS INTO TWO DOUBLE-FLAT HOMES, YIELDING AN IMPROVED RENTAL 44

CHAPTER VIII.

EXPLANATORY OF THE COST OF BUILDINGS ACTUALLY ERECTED, AND COMPARISON WITH OTHER BUILDINGS—COST OF ADAPTATION OF EXISTING BUILDINGS TO THE DESIGNS DESCRIBED IN PRECEDING CHAPTERS 48

CHAPTER IX.

SUGGESTIONS HOW THESE HOMES SHOULD BE FINISHED INTERNALLY—FIXTURES AND FITTINGS 62

CHAPTER X.

COURTS AND ALLEYS, AND HOW TO IMPROVE THEM . . 67

CHAPTER XI.

ADVANTAGES THAT WOULD ACCRUE FROM THE LEGISLATURE DEALING WITH THE SUBJECT—SKETCH OF THE ACT OF PARLIAMENT REQUIRED, GIVING THE LEADING PROVISIONS NECESSARY—NOVEL BASIS OF CALCULATION PROPOSED FOR VALUATION OF INTERESTS, TO OBVIATE LEGAL ACTIONS 76

CHAPTER XII.

ADVICE TO INVESTORS INTENDING TO BUILD OR ADAPT—CONCLUDING REMARKS 84

LIST OF PLATES.

PLATE

I. PERSPECTIVE VIEW OF THREE-ROOMED HOMES *To face title page*

II. PLAN: MARK STREET, FINSBURY—PLAN: LUMSDEN BUILDINGS . . . . . *to face p.* 2

III. PLAN OF GROUND FLOOR OF THREE-ROOMED HOMES „ 8

IV. PLAN OF FIRST FLOOR . . . . . „ 8

V. SECTIONS . . . . . „ 8

VI. PLAN AND ELEVATION OF TWO-ROOMED HOMES „ 12

VII. PLAN AND ELEVATION OF TWO-ROOMED HOMES, WITH BALCONY . . . . . „ 12

VIII. PLAN AND ELEVATION OF TWO-ROOMED HOMES, WITH BALCONY, BUT WITHOUT PROJECTING WINDOW . . . . . „ 12

IX. FOUR PLANS OF REGISTERED DESIGN A . . „ 22

X. FOUR PLANS OF REGISTERED DESIGN B . „ 26

XI. FOUR PLANS OF REGISTERED DESIGN C . . „ 28

XII. FOUR PLANS OF REGISTERED DESIGN D . . „ 30

XIII. THREE-INTO-TWO ADAPTATION: PLAN OF GROUND FLOOR—PLAN OF FIRST FLOOR—ELEVATION . „ 44

MODEL HOUSES

FOR

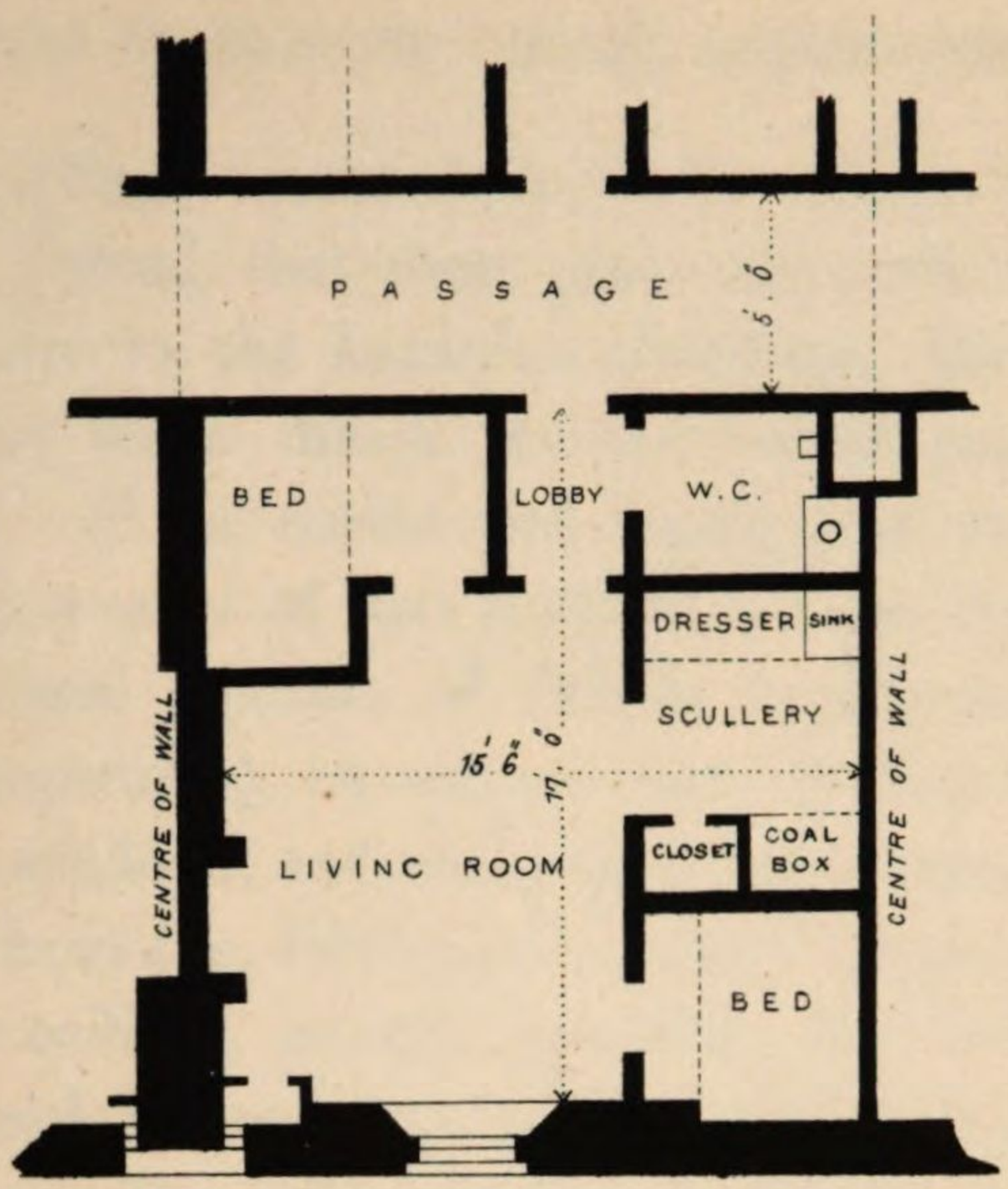
THE INDUSTRIAL CLASSES.

CHAPTER I.

REVIEW OF THE EXISTING HOMES OF THE INDUSTRIAL CLASSES AND THEIR DEFECTS.

It is clearly necessary, in putting before the reader a new design for an old purpose, to point out wherein the existing methods are found to fail. In doing this I would desire, as much as possible to avoid saying one word that might in any way annoy my professional brethren, or those gloriously benevolent people whose names alone would render this century and this country conspicuous in the annals of history for deeds of princely benevolence; but if I point out errors in the past it must be remembered I do so in the hope that it may lead to their avoidance in future buildings, and that they may not be perpetuated, as for example that objectionable feature of the external staircase has almost invariably been since 1851.

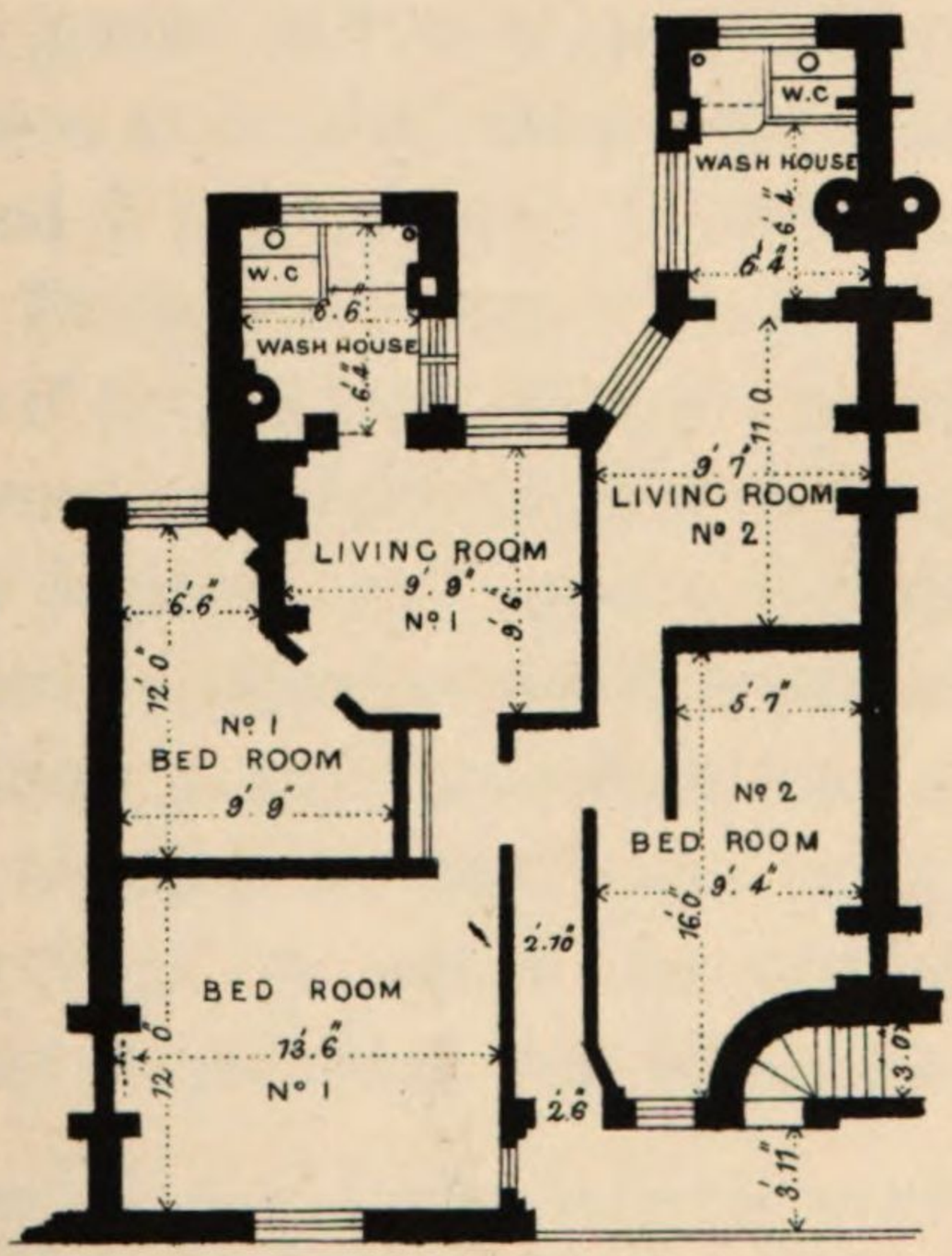
The first plan to which I would call attention is that which has made more sensation than perhaps any other: I allude to the Waterlow plan, of which I have given a plate. The first fault I venture to point out in this design is the narrow external staircase up which a piece of furniture of moderate size cannot be taken; thereby compelling the tenants to use a hoist at the back at great trouble and inconvenience. The next objection is the great loss of space in the passages. Again, a serious objection to this design is to be found in the shape of the rooms, which I venture to think no architect would defend, and therefore it is only necessary to explain to the lay reader that one great secret of good planning is to devise square or oblong rooms. They are cheaper to build, and give the best accommodation. A still greater objection is one which does not at first strike the eye so forcibly; it is that the living-rooms are (from the shape of the walls) dark and cheerless. The tenants say that the sun scarcely ever shines on their rooms even in summer, for more than a short time. My objections to these houses are confirmed by others. Take for instance the opinion of Mr. Paterson, a member of the council of a Working Man's Club and Mechanics' Institution, who says: 'Taking the plans of Mr. Alderman Waterlow's buildings, in the wings there was one square room well lighted' and that is a bedroom, 'but in the centre of the block the rooms were badly shaped, deficient in light, and a large space was occupied by passages.' I may remark I should not have spoken so fully about



LUMSDEN DWELLINGS, GLASGOW.

J. WYLSON. ARCH' 1848.

ROOMS 9 FEET HIGH. ENCLOSURES 7 FEET HIGH.



SIR SIDNEY WATERLOW'S

HEALTHY DWELLINGS FOR THE INDUSTRIAL CLASSES.

MARK STREET, FINSBURY.

M & N HANHART LITH.

these buildings except from finding there is an impression abroad that these plans are perfect. I will next allude to the Lumsden dwellings, Glasgow, to show that these things are not better managed in Scotland. If the reader will kindly look at the plan (which is a copy of that supplied to the Transactions of the Royal Institute of British Architects, by Mr. Wyatt Papworth), he will see that the two bedrooms have no windows, and their only light appears to be derived from the difference in height of the partition and the ceilings, namely two feet, and the scullery and watercloset are also lighted and ventilated in the same way. The unhealthiness of such an arrangement is so apparent as to require no comment.

But enough of this unpleasant task of criticising separate plans; the rest of the chapter I shall devote to the more general defects of the existing town model lodging-houses, at least of those with which I am acquainted, and I may mention I have paid a special visit to Mr. Twining's Economic Museum at Twickenham, to see if he had plans of any I had not seen. I did not succeed in finding any but those with which I was already familiar, but I spent a pleasant afternoon in his interesting collection, which is well worth a visit, as the 'Builder' pointed out a short time since.*

The first considerable fault is the great unpleasantness arising from the use of the external staircase. The objection of not being able to get into the street

* Since writing the above, I regret to have to record the fact of the destruction by fire of this Museum.

or leave any one set of rooms without passing neighbours and strangers shoulder to shoulder is very great, especially to women, as it deprives their actions of that privacy which the English so much covet. To this, in wet weather, or when the stairs are washed, is added the unpleasantness which must attend the descent of stairs by females. The external staircase also necessitates the external landing, whence a close view is too often obtained into some of the rooms of each occupant. The external landing or balcony also darkens the rooms. Another objection to the existing model lodging-houses is the absence of freedom. Mr. Spencer Bell says, speaking on this subject: 'They (the English lower classes) had a decided objection to those large and formally-conducted establishments where, as they considered, they were constantly under a supervision which was irksome to them.' Mr. T. Chatfeild Clarke also stated that what the poor require is 'a comfortable house, not in a block of buildings. There was a certain amount of prejudice against these immense blocks of buildings; a great one on the part of respectable parents against the promiscuous mixing together of large numbers of children during their playhours, by which they sometimes become contaminated; being beyond the parental influence and control. He believed the poor preferred to live in smaller classes of houses.'

Let me next quote the opinion of the Secretary to the 'Operatives' Building Company' (from the sessional papers of the Royal Institute of British Architects of

the year 1866). After speaking of the great attention he had given the subject, he says: 'He would ask those present to examine the plans of the buildings of these associations' (alluding to the Metropolitan Association for Improving the Dwellings of the Industrial Classes, the Labourers' Friend Society, under the presidency of Earl Shaftesbury, and the Marylebone Association), 'not of any selected portions, but of the whole buildings, and he thought they would see that very often much space was lost, and they might in most cases have been erected cheaper, and yet have been quite as substantial, healthful, and comfortable, had every advantage been taken to make a good commercial dividend.' Again, take the opinion of Rev. Richard Burgess, B.D.; he says: 'He repeated that the poor, for whom they wished to provide dwellings, were, as a rule, averse to living in those immense modern, or model edifices.' I would conclude with the speech of Professor Kerr, which I think will conclusively show that whatever may be thought of my propositions for meeting this question (one of the most important that can engage the attention of architects and the public), at least the existing plans are condemned. The Professor says: 'With regard to the first question, namely, what I call the "dogmatic" model (and I use the term "dogmatic," of course, in its merely scientific sense, as referring to something to be accepted without special argument), I may say that for 25 or 30 years the improvement of the dwellings of the labouring classes has gone steadily forward in one direction, and

only one; and it is not to be wondered at if it proves to be the fact, that in going on so long in one direction the excellent promoters of the scheme have overreached their purpose. This is by no means an unusual thing, and the question is whether a crisis in the course of this enterprise has not now arrived? I think it has; and so apparently do gentlemen of great intelligence who have spoken to-night. It is remarkable that the dogmatic plan has not been defended by any one of the speakers. It is not maintained in its integrity by any gentleman present. Therefore I must express my astonishment when I find the chief of our professional organs not only supporting it in its entirety, but paying me the great compliment of saying, that if the present opposition had not been brought forward by myself, it would not have considered it necessary to do more than dismiss it with a dozen lines of disapproval. I think it is to be regretted when we find sentimentality so far misleading an important and honoured organ of public opinion. But it is not to be wondered at either, for when one has been accustomed with unimpeachable motives to run in a particular groove for a quarter of a century, the convictions of habitual thought are not easily to be shaken.'

I do not think I need weary the reader with any more opinions to show that the great efforts which have been made to provide dwellings for the industrial classes have not succeeded,* and it is notorious, I may

* Professor Kerr says: 'Take all the model lodging-houses throughout London, erected within the last five-and-twenty years, and they are only

say, that the existing houses they live in are ill adapted for the purpose, are not conducive to health, comfort, or cleanliness. It will therefore be quite unnecessary to quote any high authorities to confirm this, and I will at once proceed to consider the plans of new buildings I have erected, ending this chapter with the remark made by Mr. Edward Hall, F.S.A.: 'He felt more than ever that the matter of planning was at the root of the question, and not only planning as to the houses themselves of the metropolis, but also as to the streets and other lines of communication;' and desiring the reader, as he follows my propositions, to bear in mind, as I have tried to do, the maxim contained in the Report of the Special Committee to the Society of Arts (April 1864): 'It is of course essential to the success of undertakings for the improvement of the homes of the people, that they should be appreciated and patronised by those for whose benefit they are intended.'

a mere drop in the bucket, compared with the ordinary progress of population.' I remember reading a short time since, that the increase of population averaged 70,000 a year in London, and it required 7,000 additional houses to be built annually to meet the increased demand from this cause.

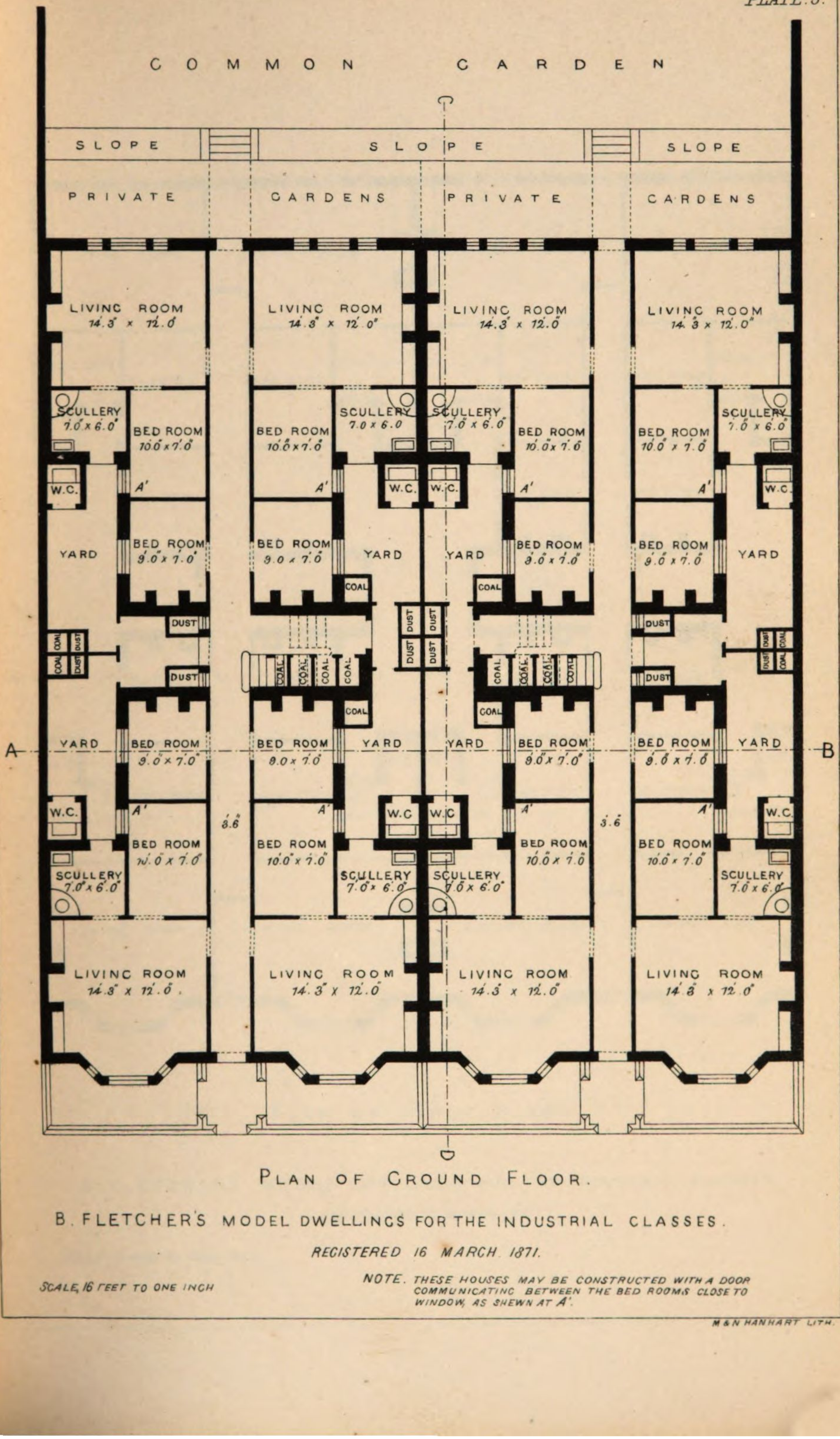
CHAPTER II.

EXPLANATORY OF THE DESIGNS REGISTERED UNDER THE TITLE 'B. FLETCHER'S MODEL DWELLINGS FOR THE INDUSTRIAL CLASSES'—FOUR DIFFERENT PLANS AND ELEVATIONS GIVEN, AND COMPARISON MADE BETWEEN THEM AND OTHER EXISTING HOUSES.

On the sound old principle that ere you condemn a thing you should be able to suggest a better, let us now proceed to consider the houses which have been recently erected at Pentonville (see Plates No. 1, 3, 4, and 5), from the designs and under the superintendence of the Author. These houses have answered extremely well, no difficulty having been experienced in letting every set of apartments on remunerative terms, a result attributable, the Author cannot but believe, in great measure to the presence of advantages not possessed by any previously erected 'model dwellings,' but even more to the absence of the *disadvantages* alluded to in the last chapter as being so prominent in the 'Waterlow' and other similar erections.

In the first place, there is nothing in the external appearance of these houses to call attention to the fact that the same building is occupied in common by more than one family. No huge ungainly mass of brick-work, in appearance something between a barrack and a workhouse, as in the case of the building in Platt

PLATE. 3.



PLAN OF GROUND FLOOR.

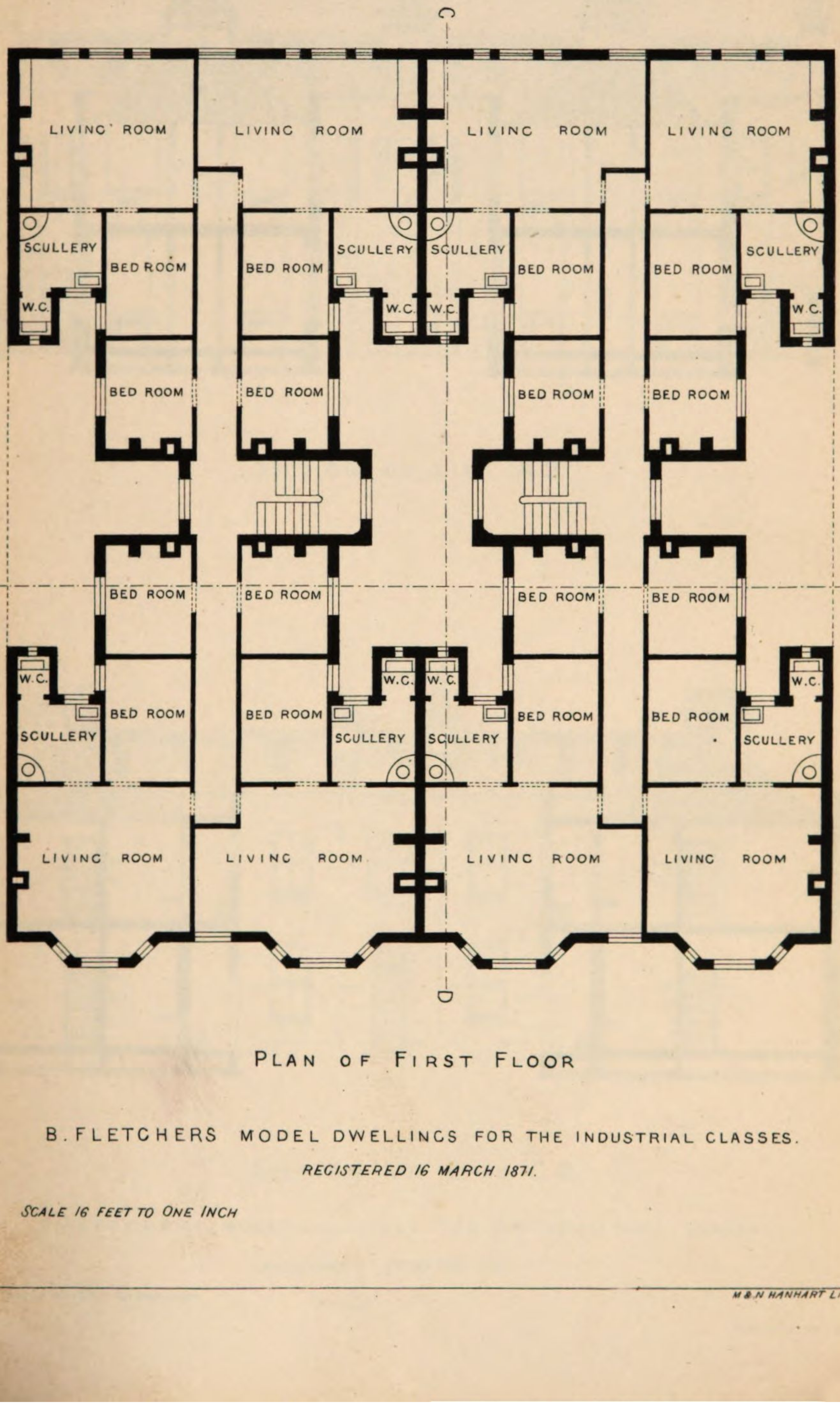
B. FLETCHER'S MODEL DWELLINGS FOR THE INDUSTRIAL CLASSES.

REGISTERED 16 MARCH 1871.

SCALE, 16 FEET TO ONE INCH

NOTE. THESE HOUSES MAY BE CONSTRUCTED WITH A DOOR COMMUNICATING BETWEEN THE BED ROOMS CLOSE TO WINDOW, AS SHEWN AT A'.

M & N HANHART LITH.



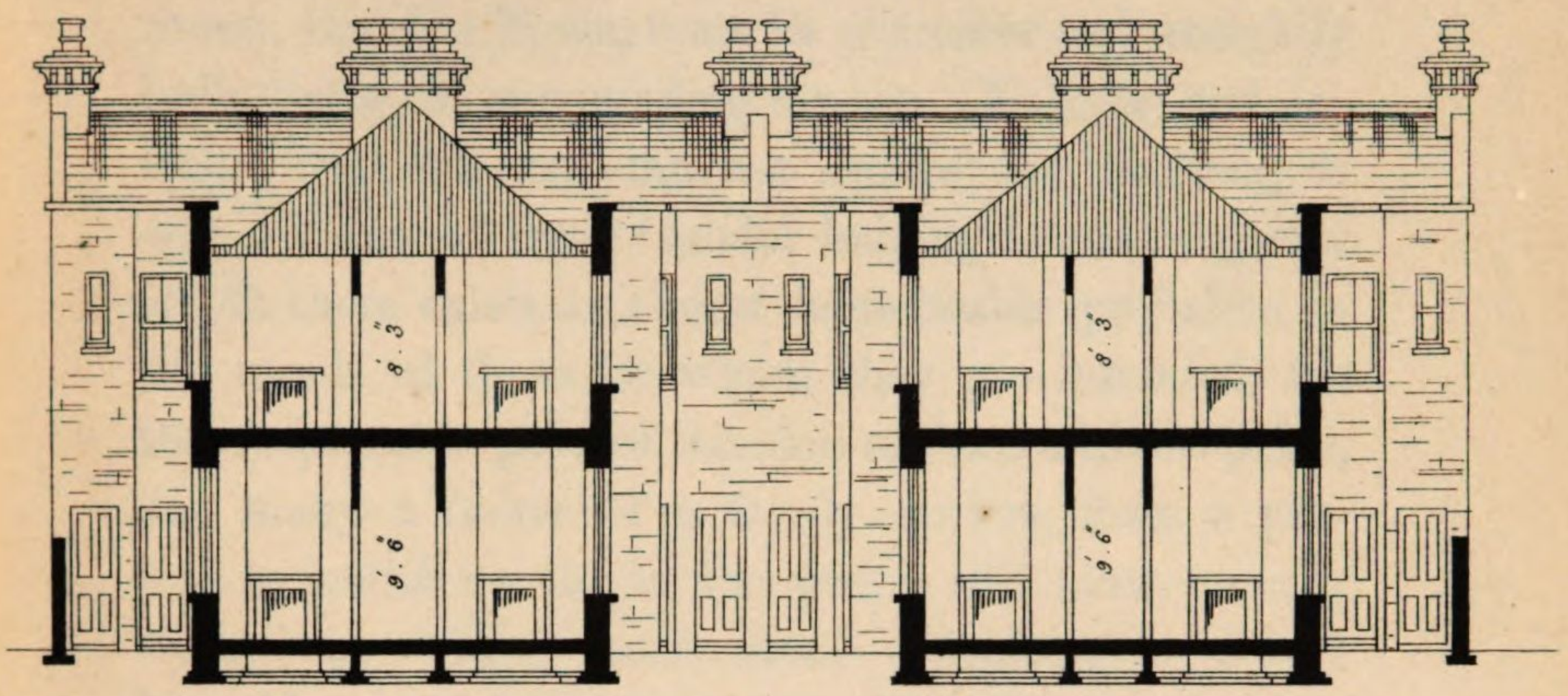
PLAN OF FIRST FLOOR

B. FLETCHERS MODEL DWELLINGS FOR THE INDUSTRIAL CLASSES.

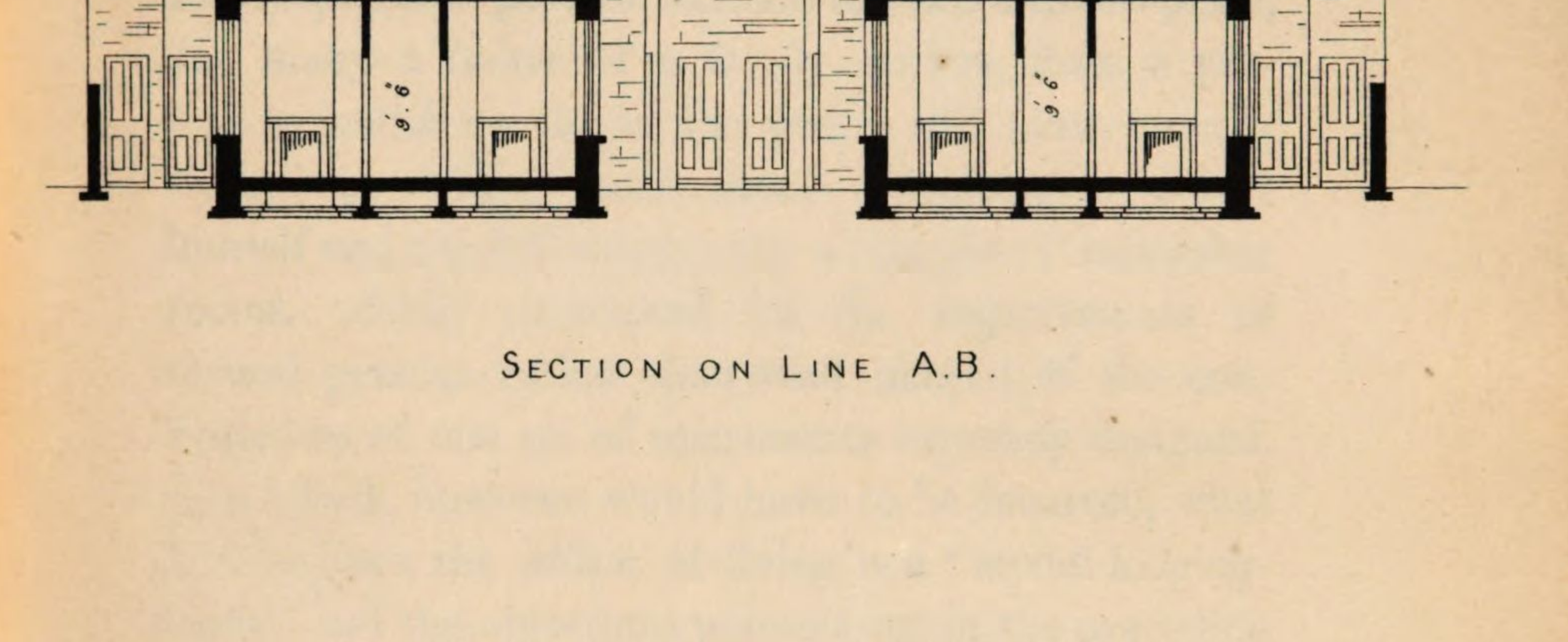
REGISTERED 16 MARCH 1871.

SCALE 16 FEET TO ONE INCH

M & N HANHART LITH



SECTION ON LINE A.B.



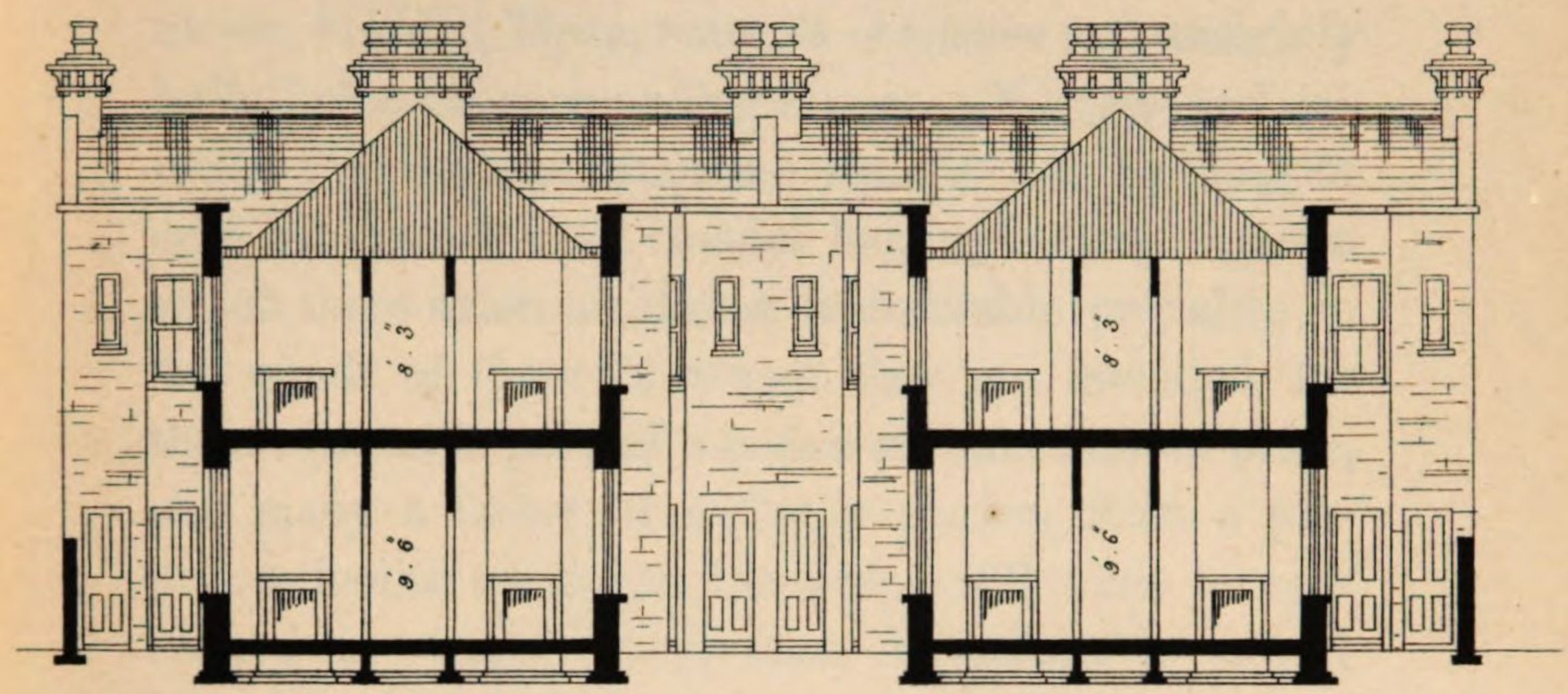
SECTION ON LINE C.D.

B. FLETCHER'S MODEL DWELLINGS FOR THE INDUSTRIAL CLASSES.

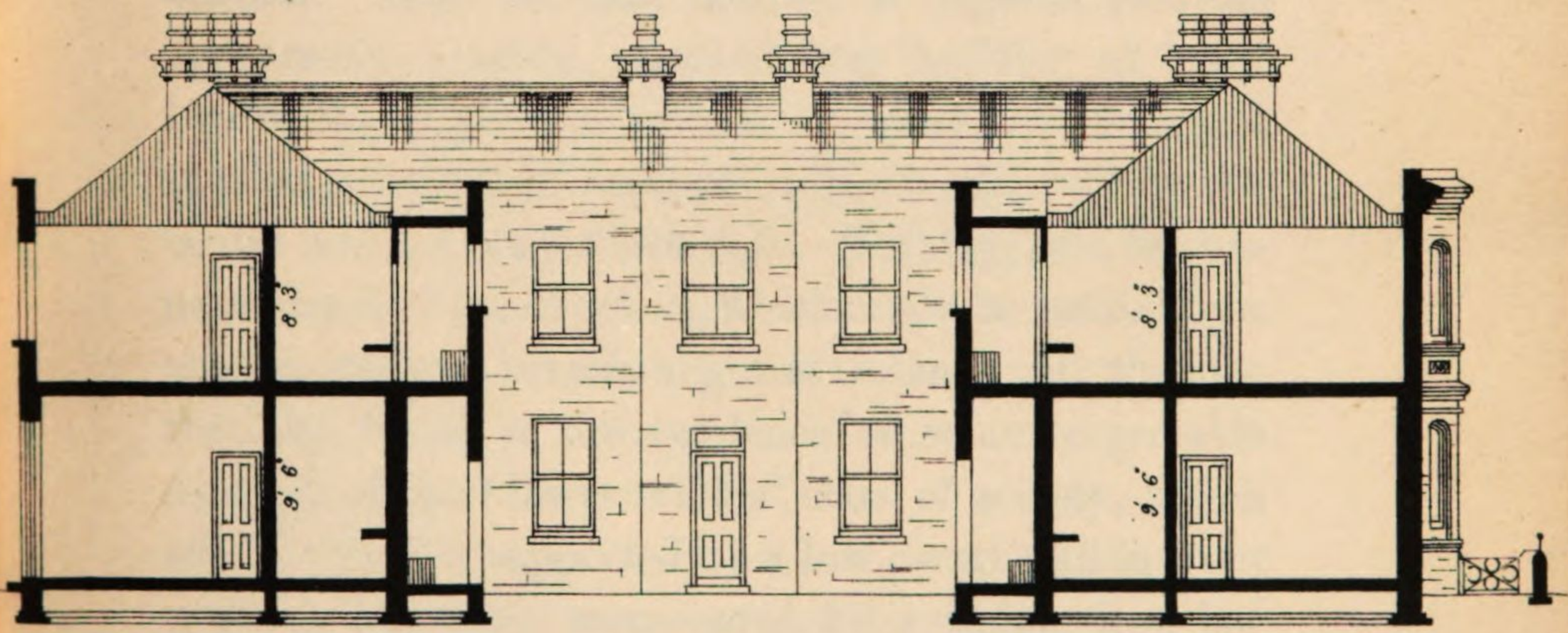
REGISTERED 16TH MARCH. 1871.

SCALE 16 FEET TO ONE INCH.

M & N HANHART LITH



SECTION ON LINE A.B.



SECTION ON LINE C.D.

B. FLETCHER'S MODEL DWELLINGS FOR THE INDUSTRIAL CLASSES.

REGISTERED 16TH MARCH. 1871.

SCALE 16 FEET TO ONE INCH.

M & N HANHART LITH

Street, Camden Town, rears its obtrusive and unsightly bulk above the surrounding houses. No ugly and inconvenient external staircase stamps the building at once as one of those 'model lodging-houses,' against which there exists an almost ineradicable prejudice in the minds of those for whom they are intended, for the respectable poor of London are not without pride, and many a father of a family prefers, from a prejudice, foolish no doubt, but which still must be considered in dealing with these questions, to crowd himself and his belongings into a couple of miserable rooms, wholly unadapted for the requirements of several persons, rather than avail himself of the conveniences of one set of apartments expressly designed, with which, however, would have to be incurred, what he considers, the *odium* of living in a 'model lodging-house,' and the objections pointed out in the preceding chapter. Here we find merely, as regards external appearance, a quiet, unpretending building of brick two storeys high, with cement dressings, and arranged in what is called the 'cottage' style, i.e., the door in the centre and a room on each side. Nothing, save the unusual depth of the structure, which might be noticed by a critical observer, reveals aught at variance with the idea that the house is the residence of some respectable member of the 'lower middle' class of society, which effect is further supported by a low dwarf wall in front with stone coping, surmounted by a simple iron bar and standards. Entering, we find that a passage running the whole length from front to back, and, at

the back, leading out into a nice piece of garden ground, secures a thorough ventilation throughout the entire floor, and gives access to *four* sets of apartments only. From the centre and to the right of this central passage rises the staircase, spacious, well lit, and so contrived as to present no awkward angles or corners, and landing in another central passage, which, running exactly over the one on the ground storey, in like manner contains the entrances to four more sets of apartments. Thus the whole number of different families using the one entrance door of each building is but eight, presenting a striking contrast to the hive-like arrangement of some existing and much-praised edifices, where a single entrance supplies ingress and egress to endless ramifications of passages and corridors crowded with the doors of separate domiciles.

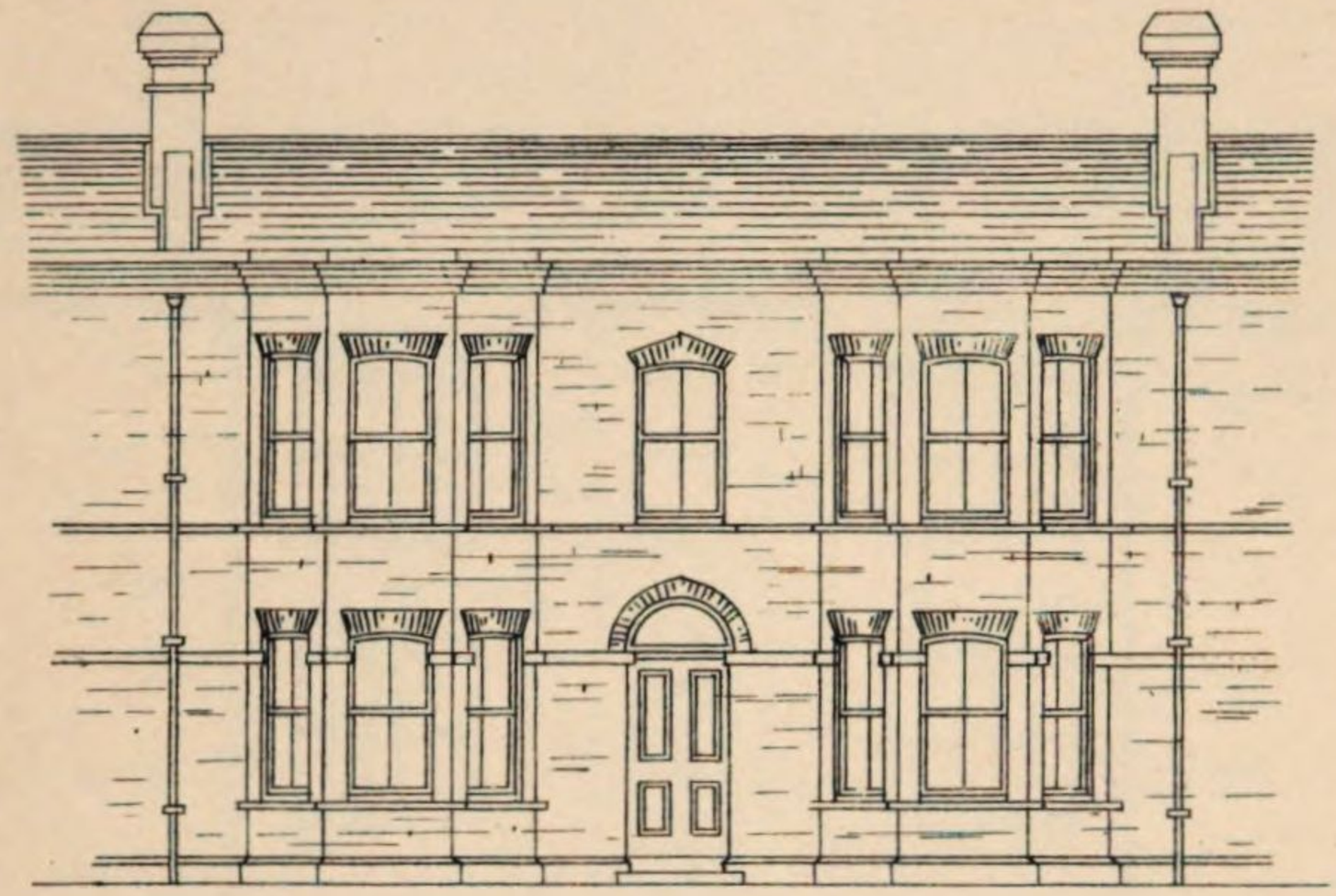
Each set of apartments in the building now under description consists of four rooms, viz., living-room, scullery, and two bed-rooms; the scullery and one bed-room opening out of the living-room, while the other is so situated that, while convenient access is obtained to it from the common passage should it be desired to let this one room separately to a so-called single man lodger, a door can readily be made opening from one bedroom into the other, should it be required for occupation by members of the same family. A sink and copper conveniently placed in the scullery, with the water laid on, supply every requisite for cleanliness, while separate waterclosets, coalbox, and dustbin are provided for each set, in convenient positions, easily to

be identified by a glance at the plan. The coalboxes for the four sets on the first floor are obtained under the stairs, a separate key being of course provided for each.

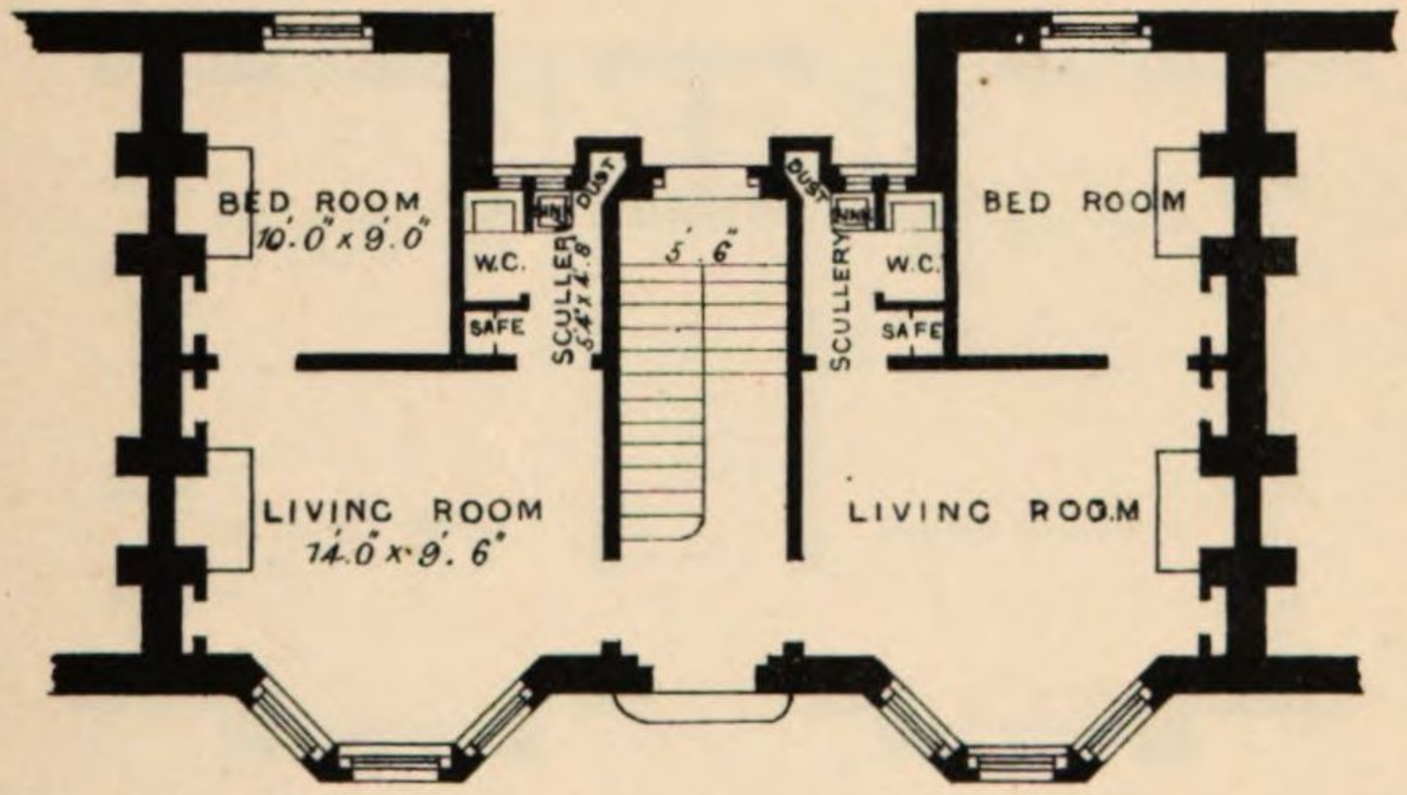
In the internal finishings of these houses, though a proper economy has prevented the introduction of any expensive and unnecessary embellishments, care has been taken to provide, both in appearance and in fact, all the comfort and convenience of an ordinary English home. In this spirit it has been thought wise to adhere to the usual system of plastering and papering the walls, rather than to favour the proposals of some to colour merely the bare brickwork of the walls, with the view of preventing the harbouring of vermin, or to line the walls with glazed tiles or bricks, with the same view, and for the greater facility of cleaning. One great point to be considered in these dwellings is that they should present to the occupant all the appearance and sense of comfort and—to coin an expressive word —'homishness' of the rooms to which he has been accustomed, and to ensure this end the old familiar plaster and paper are surely best adapted. The colouring on the brickwork has a poverty-stricken aspect wholly at variance with all idea of comfort in a living-room or bedroom, while the glazed walls are equally open to objection on the score of 'chilliness,' and though they may possess a slight advantage from a sanitary point of view, it would take a long time to educate the mass of the industrial classes to forego their sense of home comfort for any such consideration.

Enough has now been said to illustrate my views as to the best method of avoiding, in buildings specially erected for the purpose, the errors pointed out in the preceding chapter as existing in the structures hitherto erected, and to explain the reasons which induced me, after much careful thought and study, to adopt certain forms and expedients in the houses erected by me, so as to make them in every sense 'model dwellings,' and to come up to the standard recommended by Lord Shaftesbury, quoted on the title-page; and following his Lordship's view that until every workman can have such homes we are to be content with something more humble, I proceed now to explain my two-roomed houses. The first we will consider is Plate 6. Here I have endeavoured to put the *conveniences* into the smallest compass, and give a large sitting-room with bay window. Parenthetically, I may remark, I much like bay windows, and strongly recommend their adoption, unless the question of economy is paramount, as they are cheerful and light, and I have seen the occupants put in them a small table at which they work; so that meals may be taken at the larger table in the centre of the room, and their work not be disturbed. In this plan we have all that can be required where the tenancy is small and one bedroom only is required, with an exceedingly light staircase having a current of air from back to front. The size of the rooms is as follows: living-room 14 feet by 9 feet 6 inches, exclusive of bay windows; bedroom 10 feet by 9 feet, scullery and W. C. 5 feet by 4 feet 9 inches. They have

PLATE 6.



ELEVATION.



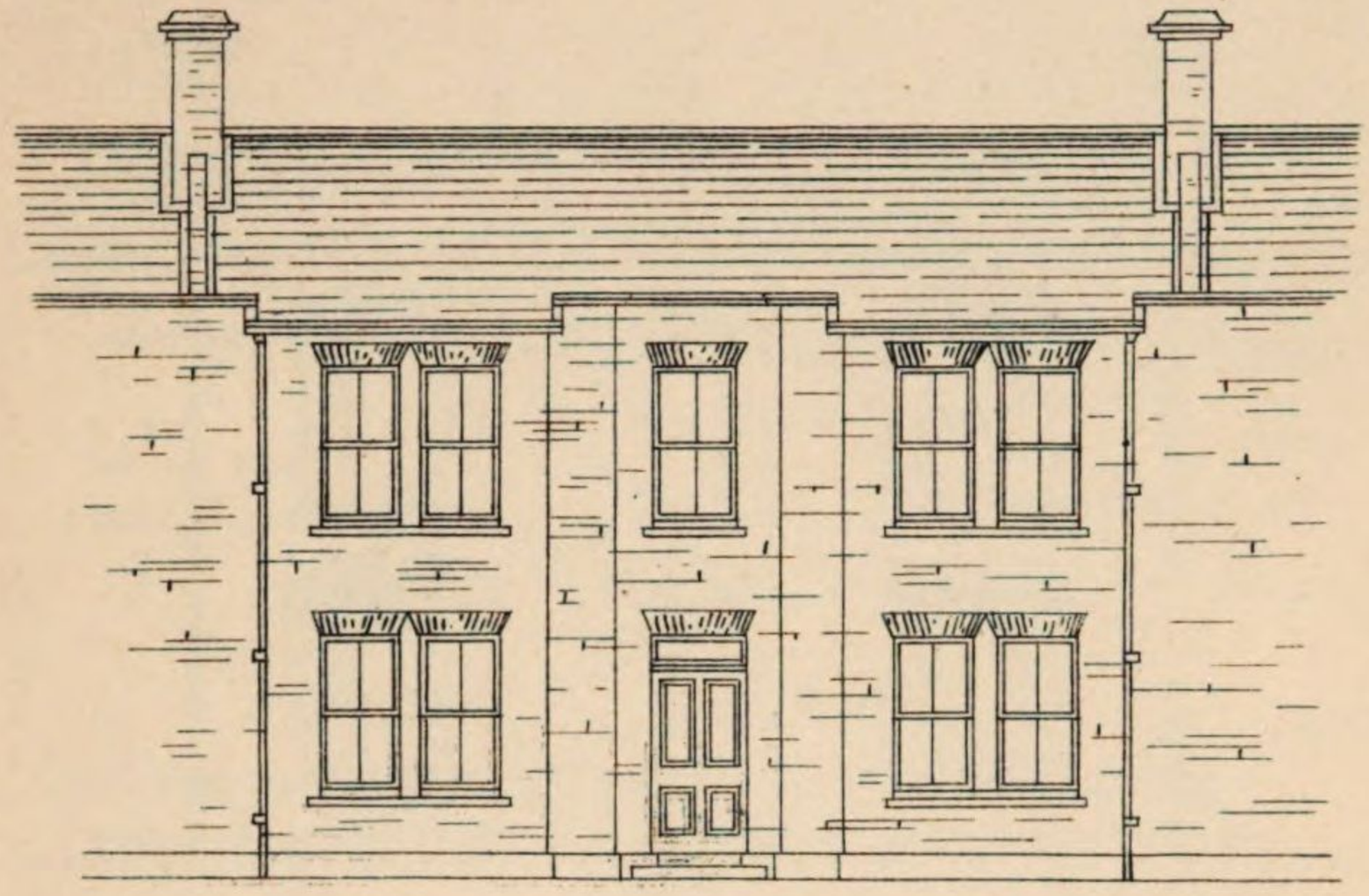
PLAN OF ONE FLOOR.

RECISTERED. JUNE 5TH. 1871.

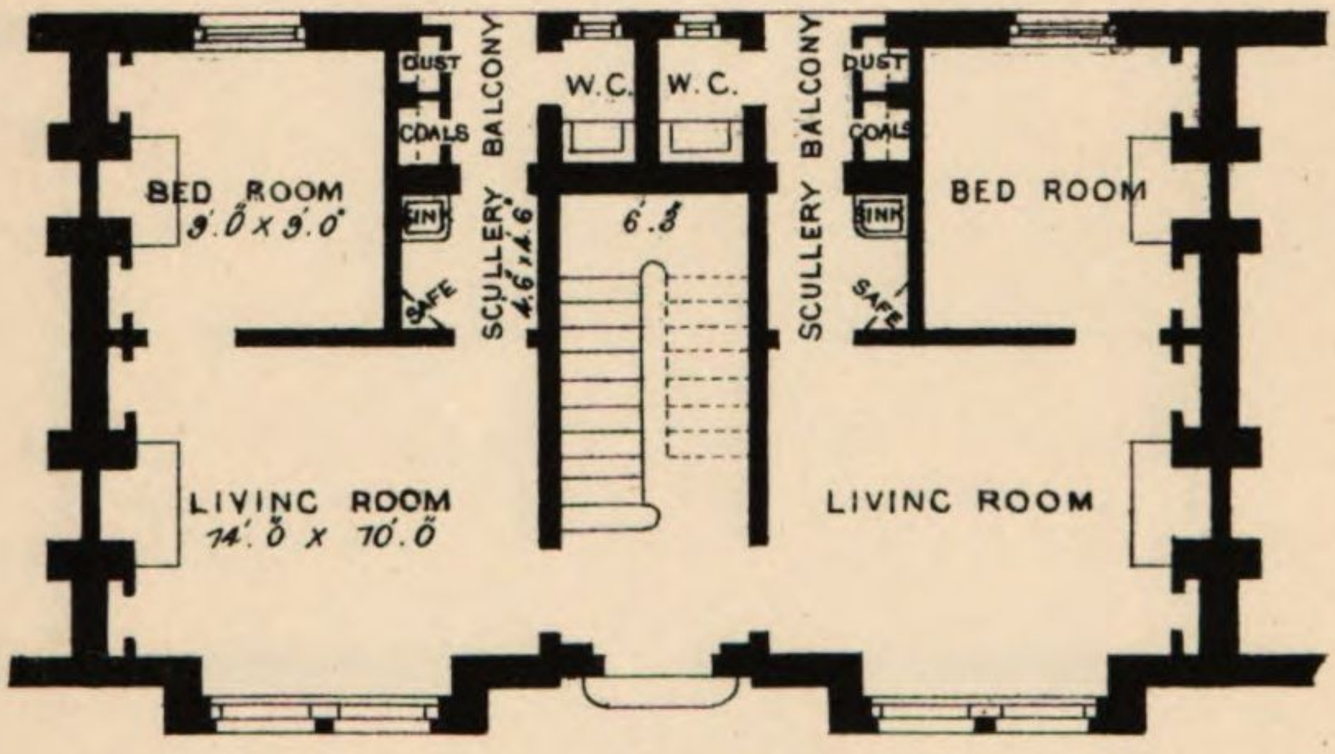
SCALE 16 FEET TO ONE INCH.

M& N HANHART. LITH.

PLATE.7.



ELEVATION.

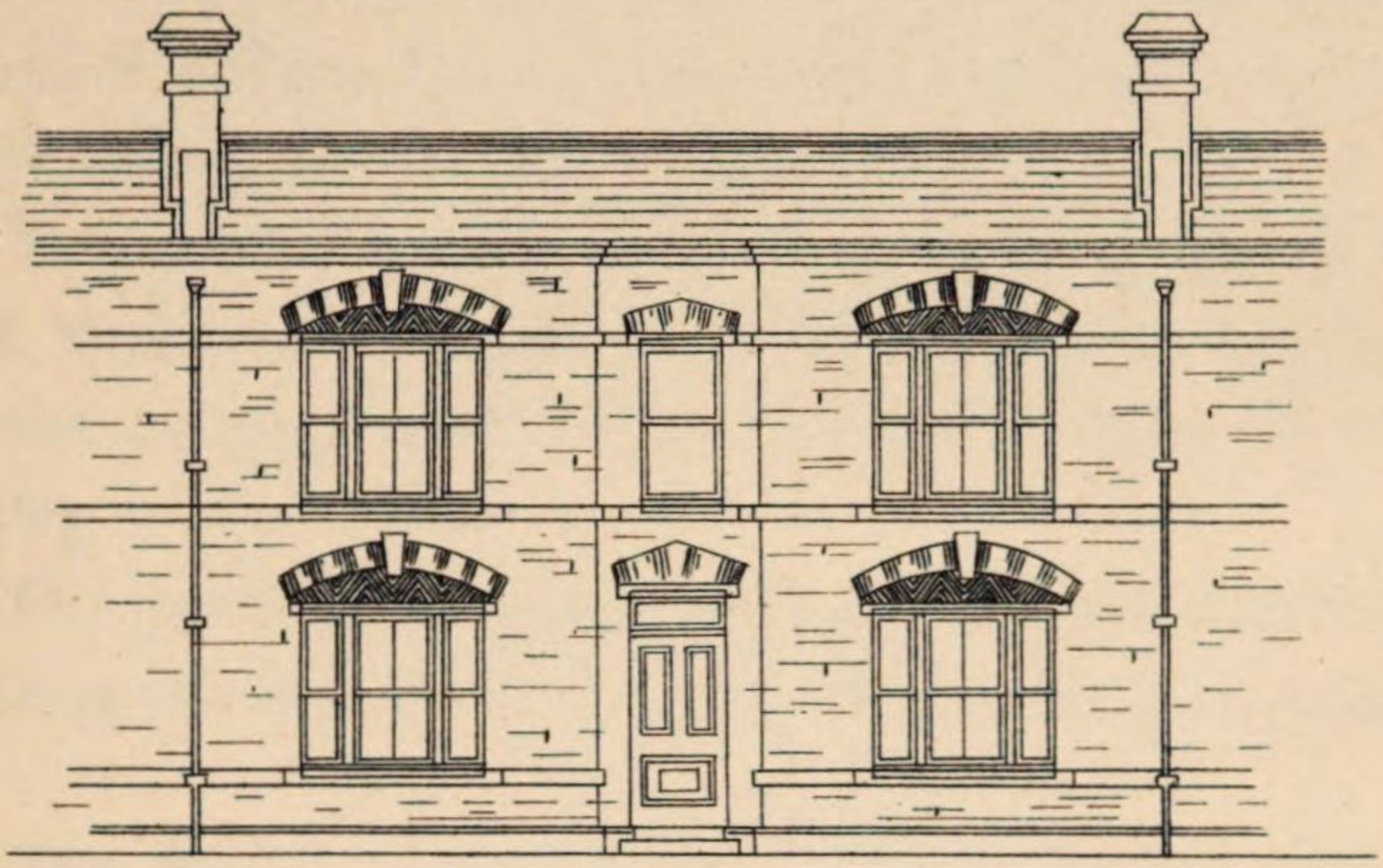


PLAN OF ONE FLOOR.

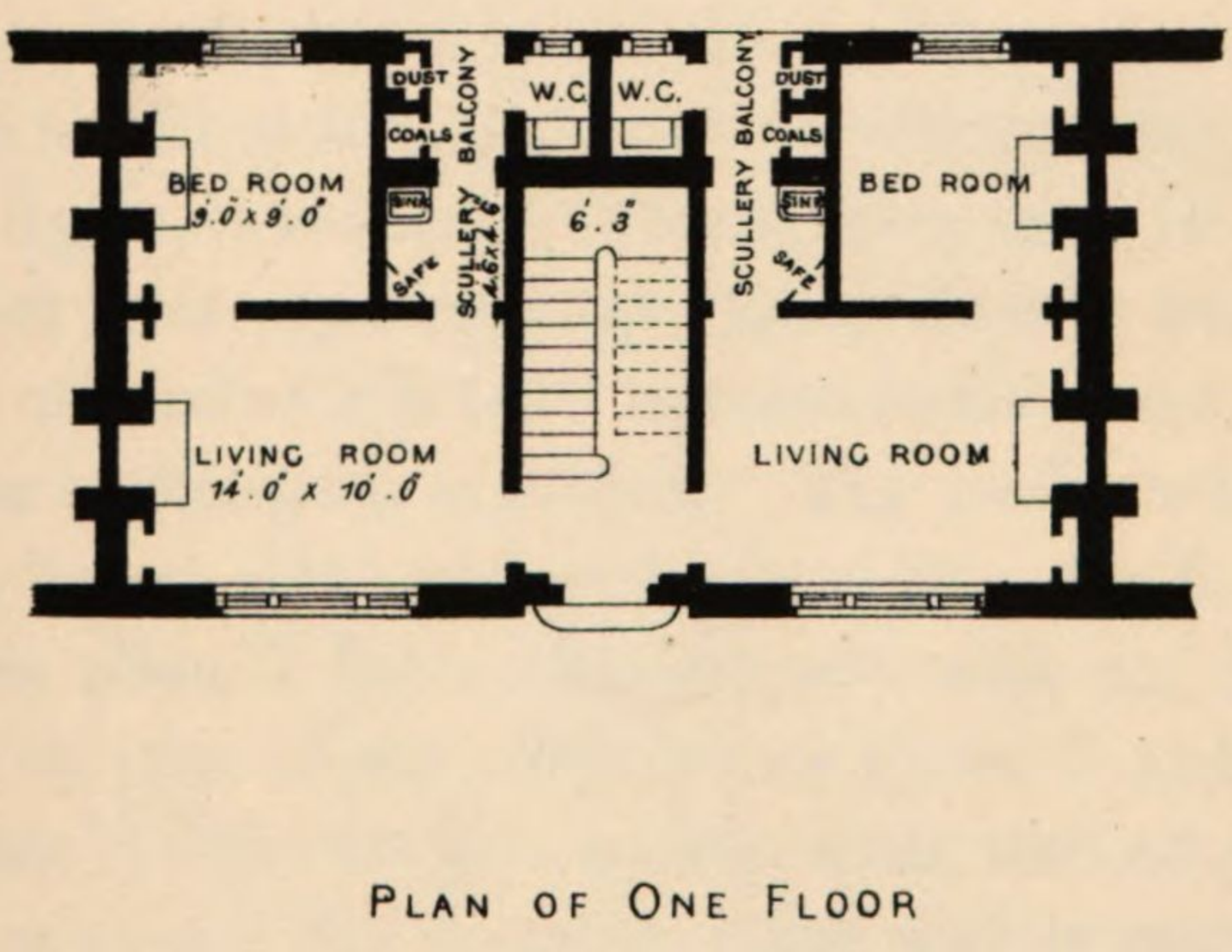
RECISTERED JUNE 5TH 1871.

SCALE 16 FEET TO ONE INCH

M&N HANHART LITH.



ELEVATION.



PLAN OF ONE FLOOR

REGISTERED JUNE 5TH 1871.

SCALE. 16 FEET TO ONE INCH.

M & N HANHART LITH

thorough ventilation, and if it be desired a third storey could be added and a fourth and fifth, in fact any number of storeys, but I must repeat I am opposed to lofty buildings for these reasons :—

1. Too many families are congregated together, which renders the spread of disease easy, and necessitates the having fixed rules to limit the freedom of the tenantry.

2. The many-storeyed building overshadows the street and keeps away from its surface the sun's health-giving rays.

3. The dislike of many stairs, which induces people to remain at home and not take proper exercise.

4. That as the builders of these enormous blocks of buildings do not widen the streets or increase the yards *where* they pull down existing property, you have about four times the number of families to use the same thoroughfare, and the same or diminished space in yards.

As an example of how true these objections are, take Streatham-Street model houses, Bloomsbury, and compare the height of that block with the surrounding property. Again, as to back-yard space: they have 70 feet by 30 feet ; this may seem large, but divide it by 54, the number of families it is built to accommodate, and the smallness of the space is evident. The back yards of ordinary houses give more, even where let out in floors. The next plans I have designed are with an open balcony in rear of the scullery (see Plates 7 and 8). Take Plate 8 first : we have a plain front without projecting windows, the doorway being slightly recessed

to break the line of frontage. The elevations are neat, having little ornamentation; the living-room windows are Venetian, so as to admit plenty of light and be cheerful; passing through the scullery, which contains meatsafe and sink, we reach the open balcony; thence the watercloset, dustshafts, and coalcellar. The roof of the balcony of ground floor is formed by the balcony of first floor, the first floor balcony being covered by the main roof of house.

Plate 7 I have prepared to show how the same plan might be adapted to houses having a forecourt, or where economy was more necessary; as we avoid the building of parapet walls and resort to eaves gutters, we omit the slightly ornamental Venetian windows in living-rooms and instead put two ordinary windows, with common axed arches.

The size of the rooms I append:—

	ft.	in.		ft.	in.	
Living-room . . .	14	0	×	10	0	(Exclusive of bay windows.)
Bedroom . . .	9	0	×	9	0	
Scullery	4	6	×	4	6	
Balcony and W.C. . .	7	0	×	5	0	

A reference to the plates will show that the staircases are well lighted and ventilated.

The foregoing three plans are designed to be built where the ground does not give sufficient depth to erect my first described model building. They are, including the external walls, under twenty-two feet deep. One other point I should allude to, is the back yards, or back gardens. I could get income therefrom

by letting them in portions to the ground-floor tenants to erect small workshops on.

A fifth design (Plate 13), the reader will find described in Chapter VIII., and although it is there shown as adapting three existing houses into two, I think the plan well worth attention for new buildings, and that it has many merits to recommend its adoption.

We pass now to the consideration of another, and perhaps more universally interesting phase of the question, viz., the adaptation of *existing* houses to the purpose of 'model dwellings,' i.e., buildings which can be let out in different sets of apartments, each set having, complete in itself, all the appurtenances and conveniences of an ordinary dwelling-house.

CHAPTER III.

DEFECTS OF ORDINARY HOUSES FOR LETTING OUT IN APARTMENTS OR FLATS—OBJECTIONS POINTED OUT.

THAT the adaptation of existing houses is the only way to deal largely and effectually with the question, I think all will admit, but let me, for fear some may disagree, quote that high authority on this subject, Lord Shaftesbury, who says, speaking of *adaptation* of *existing buildings*: 'Really and truly, this was the only way in which they would be able to provide for the great mass of the population of London.' He had been speaking of the adaptation of Tyndall's buildings, in these words: 'That place had now, by adaptation, become decent and healthy. The rents were regularly paid, and the occupants were enabled to have a tenement of three rooms, at a much less figure than would be given in other places for a home in only one room. They were enabled to do that, because they had not spent a large sum of money—not having had to build from the ground. He felt satisfied *that* was the only way in which they would be able to meet the present evil, and they could do that with a small sum of money.'

Again, take the opinion of Mr. Espinasse, who remarks: 'Some years ago he looked into the financial details of some of these societies, and he found that it

was impossible for any of them to realise a profit. *When efforts were made to adapt and improve old houses, it was possible to make both ends meet, but not otherwise.*'

Let me also quote Rev. Richard Burgess, B.D.: 'He believed they would find that the building of immense edifices for the occupation of the poor, would not be so effective as taking houses already located, and turning them into habitable places for the poor.'

Again, if more confirmation be required, listen to Professor Kerr: 'I am constrained to say that I believe it would be the best possible course to adopt for the improvement of the dwellings of the common working classes, to build new tenements throughout the suburbs of London, and *alter old ones* more centrally situate, on some single-room principle, literally by the thousand.'

Probably, then, no more interesting enquiry can be prosecuted than this: How can we adapt the many thousands of houses in London and other large towns, to the altered requirements of the day? We find almost everywhere masses of houses, originally built for the purposes of one family—either from fashion having flitted from the locality or the speculative builders having only one form of plan which they have never varied, except making the rooms smaller or larger, according to the frontage—I say we find these houses let out in floors, to various tenants; and so well has Professor Kerr described the present occupation of such houses, that I feel I cannot do better than quote his words. He says: 'You find these houses let out in floors. They consist

ordinarily of three floors, ground, first, and second floors, with sometimes attics, and sometimes kitchens, which I need not here take into account; and each floor consists of the well-known two rooms, the front room being about fifteen feet by twelve feet, and the back room the same size *minus* the width of the staircase, or about nine feet by twelve or thirteen feet. The ground-floor front room is curtailed by the width of the entrance passage, and on that level there is a back door behind the stairs. Each floor is occupied by a separate family; the back yard, with its water supply, waste grating, watercloset, and dustbin, being common to all occupants. On each floor, the front room is the sitting or living room, and the back room is the bedroom. If the family consists of a married couple, with either no children or only very young ones, the children may be accommodated for sleeping on a small separate bedstead in the back room with the parents; or otherwise, there may be in the sitting-room a press or sofa bedstead, for their accommodation. Indeed, even when this is not necessary for the accommodation of children, it is very often found that people of this class, who are living as they consider comfortably, keep up the sofa bedstead in the sitting-room for the occasional accommodation of a guest.' Again, take the opinion of the Secretary to the Operatives' House Building Company, who says: 'If they took the cases mentioned of the better artisan class living in houses of six or eight rooms, they would find that those houses were invariably built for the accommodation of one

family. The houses now occupied by artisans in apartments in dense neighbourhoods, were all so built originally, and were formerly actually occupied by single families of a rather higher social grade, while those now being built in the environs of London, were built as though they were intended to be occupied by one family. That the ordinary houses were, for the most part, very unsuited for the occupation of several families might be inferred from a general consideration of their plan. Those houses consisted of basement, ground, first, second, and third floors—sometimes. The basement was generally the only portion fitted with the proper means for cooking; the parlours were small rooms, usually fitted with dwarf cupboards and small grates, adapted only for sitting-rooms; the first floor partook more or less of the drawing-room character, with, perhaps, marble chimney-pieces; and the floor above, built and fitted as bedrooms, were even more unsuited to the proper performance of the domestic duties of a family. The inconveniences in this respect increased the higher they went up. Such was the ordinary accommodation of well-to-do artisans. There were no conveniences for getting clean water upstairs, and removing dirty water to downstairs —*a task which usually fell to the artisan himself, when he returned home from his day's work*;—and on one day of the week, certainly for the greater part of the year, he had to submit to the inconvenience of a vapour bath, from wet linen hung in the room to dry. Such was the ordinary state of life of the artisan class. The

conveniences for cooking were extremely limited, and when they considered how necessary it was to a man's health that his food should be wholesomely cooked, and his means economised as much as possible, they must feel the importance of providing proper accommodation. He did not think those people ought to be called Quixotic who attempted to give the artisan class places to live in where their wives could perform the multifarious offices of domestic life without so much labour as they usually entailed.'

These then are the existing homes of many, many thousands of the industrial classes, and it must be remembered that such homes are perpetually built wherever builders can find vacant ground, thus continuing the ONE plan they have, with all its objections.

Amongst the objections that most prominently strike one, are the following :—

1. The inconvenience of fetching water from a distance.

2. The inconvenience of removing waste or dirty water.

3. The distance to the watercloset, and its use by different families.

4. The inconvenience in removal of cinders, &c., to the dustbin.

5. The absence of any convenience for washing up plates, dishes, &c., thereby compelling the use of the living-room for that purpose, and so preventing that room being kept dry and tidy.

6. The absence of coal receptacles in close proximity.

7. The great labour and time expended in the present mode of getting and getting rid of water, 'washing up,' fetching coals, and removal of dust and cinders.

I think all will admit that where cleanliness necessitates a great amount of labour among the working classes, dirtiness and untidyness are found to exist, and that therefore the first essential to be sought in altering their existing dwellings is to give them 'to their hand,' as they would express it, all those appliances which will lessen that labour. I am certainly afraid that if the middle or upper classes had to struggle against all the inconveniences I have enumerated, they would also succumb to dirt and untidyness. But whether this be so or not, one thing is certain, which is this, that to give the working classes every convenience is a great step towards the elevation of the masses.

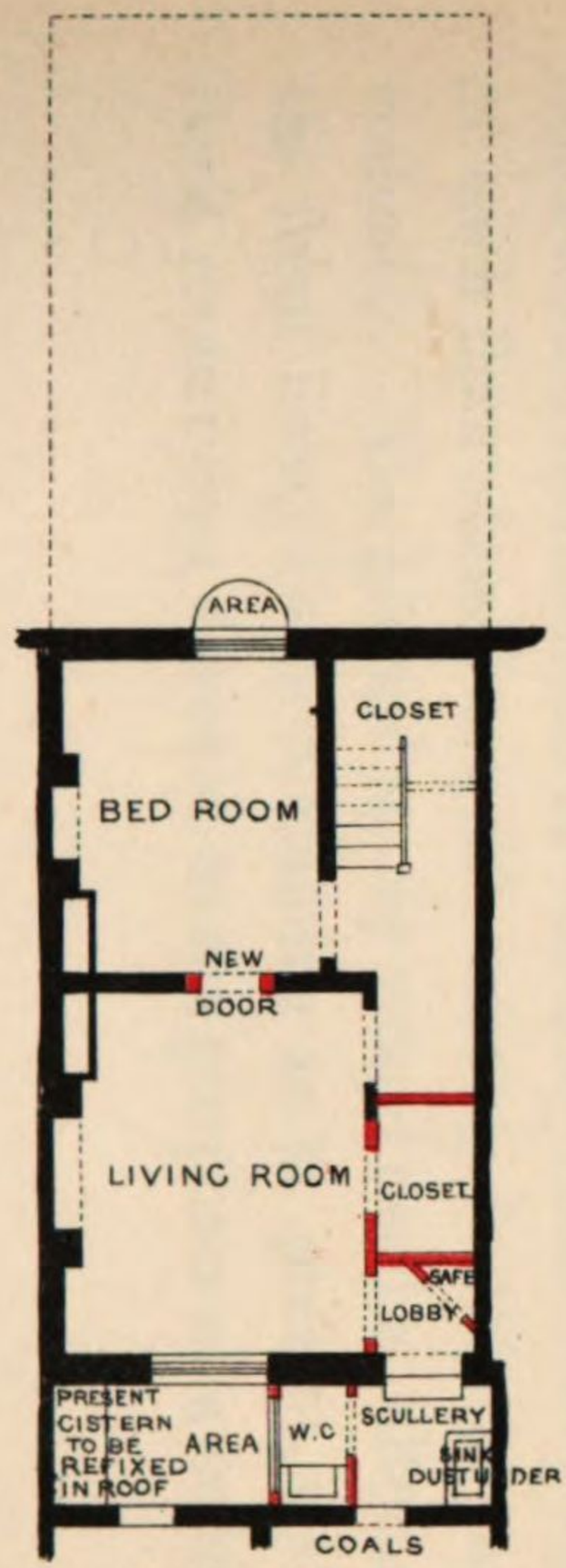
In the two chapters that follow, I propose to explain how existing houses might be altered so as to meet all the objections I have mentioned. Then I shall devote a chapter to the very important question of cost.

I will now conclude the present chapter, as I feel that my readers, both lay and professional, will agree with me fully to this extent—*that the case is proven as to the present houses, and that it would be one of the greatest boons to civilisation and to the improvement of the enormous masses of town working men and their families if some plan could be devised to alter existing houses, this being the only way to deal quickly and effectually with so vast a question.*

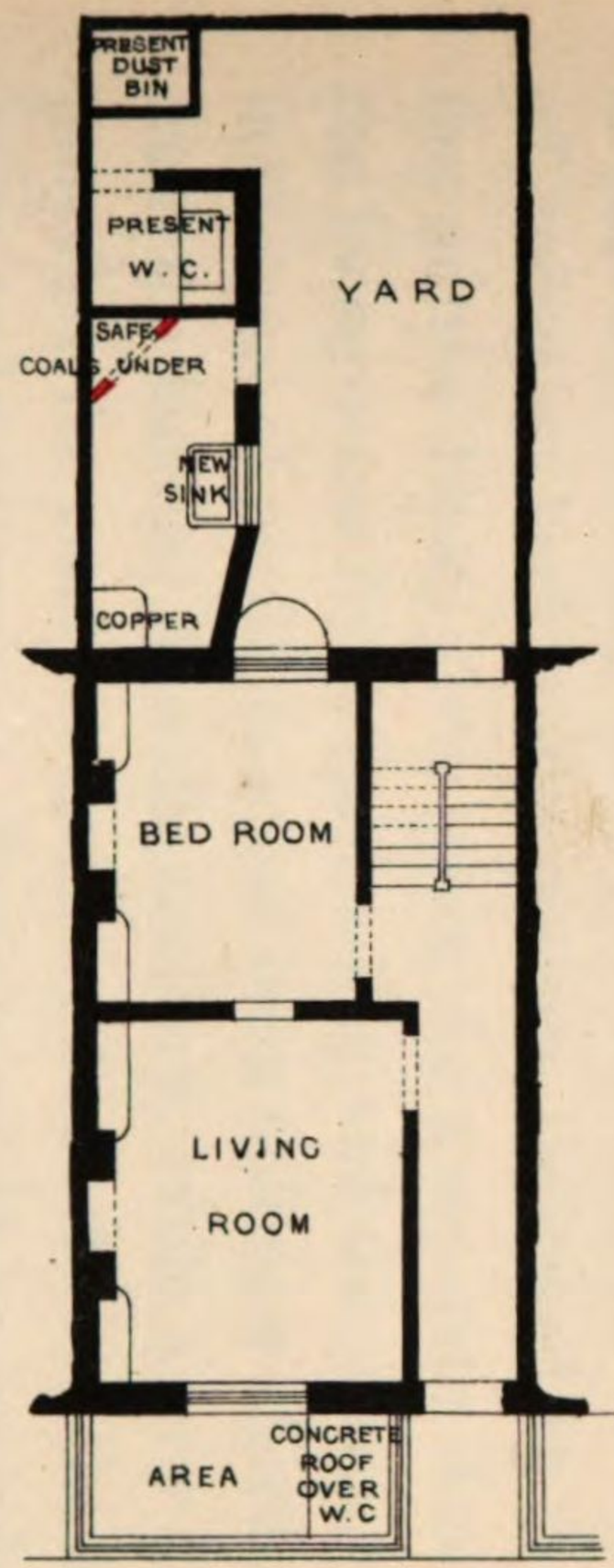
CHAPTER IV.

EXPLANATORY OF TWO DESIGNS REGISTERED UNDER THE TITLE 'B. FLETCHER'S MODEL PLAN FOR ADAPTATION OF DWELLING-HOUSES FOR LETTING IN FLATS.'

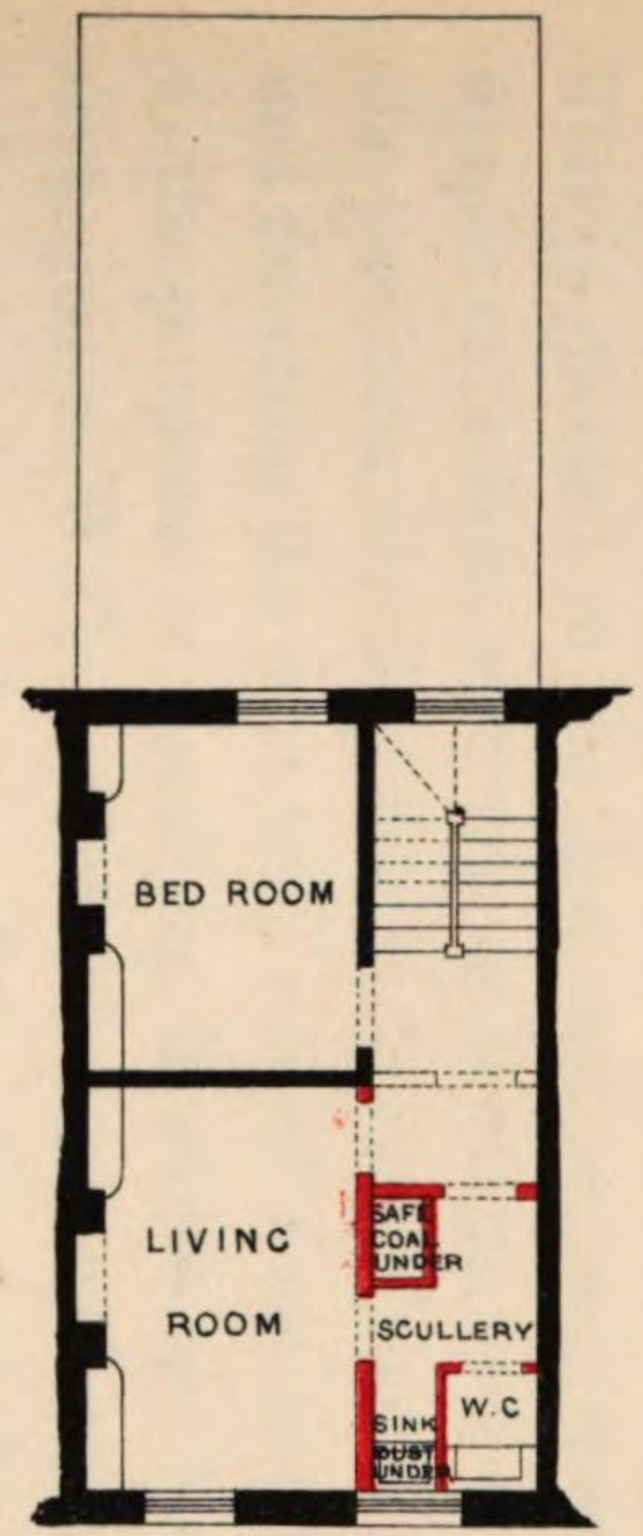
HAVING now expounded the view that the conversion of existing houses to the purpose of 'model dwellings,' is a scheme which may in many cases present advantages superior to that of the erection of an entirely new building specially for the purpose, as where owners of house property may desire to benefit the poorer classes without incurring any very considerable outlay, and at the same time obtain a good rate of interest on the capital invested, I may proceed to the development of my ideas as to the means by which these ends may be best arrived at. For this purpose I have had taken the plans of a house situated in a street leading out of the Hampstead Road, which may be accepted as a fair type of a very common class of house property in London, and have devised such alterations as, with the least outlay, appear necessary to render each floor suitable for letting as a separate set of apartments, comprising in itself all the conveniences of a dwelling-house of the poorer class. These alterations I hope, by the following explanations, and with the aid



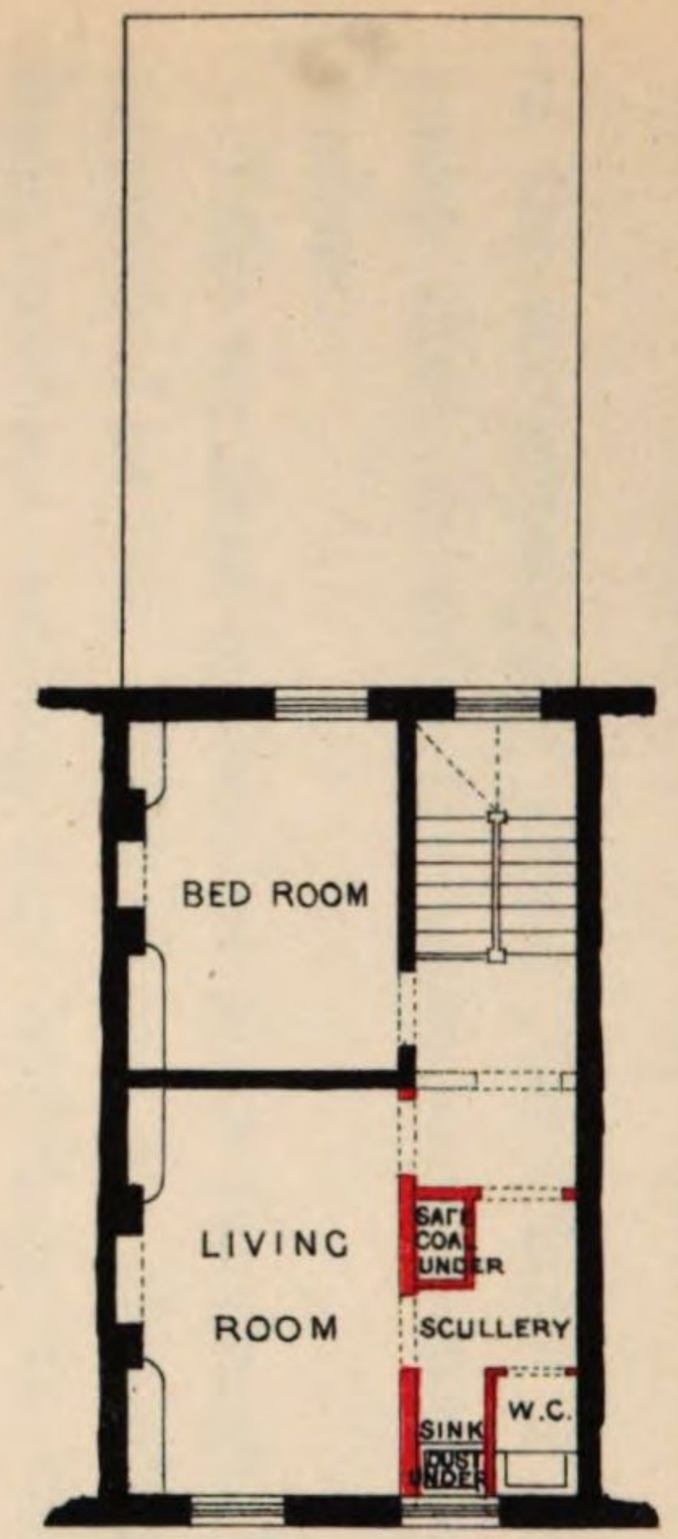
BASEMENT.



GROUND PLAN.



FIRST FLOOR PLAN.



SECOND FLOOR PLAN.

B. FLETCHER'S MODEL PLANS FOR ADAPTATION OF EXISTING DWELLING HOUSES FOR LETTING IN FLATS. DESIGN **A**. REGISTERED. 22 MARCH. 1871.

SCALE. 16 FEET TO ONE INCH.

ALTERATIONS SHEWN IN RED.

M & N. HANHART. LITH.

of the accompanying plates (see Plates 9 and 10) to make clear to even the most non-professional of my readers.

Take we then in the first place the design I have distinguished as 'A,' which is one for obtaining on each floor, without adding any buildings to the existing structure externally, a living-room and one bedroom, with scullery, W.C., sink, coalbox, and meatsafe. This is effected on the first and second storeys by the simple expedient of carrying through to the front wall the partition dividing the back room from the staircase, and devoting the part thus cut off from the front room to the purposes of a scullery, in which are conveniently arranged a W.C. (which has external ventilation by taking in a part of one of the front windows), a sink, and a coalbox with meatsafe over. The shorter piece of partition dividing the front and back rooms thus cut off, being set back to the position indicated by the red tint on the Plate, gives space for a separate door into the living-room from the landing, and the existing door in the part of partition so set back will now afford access from the landing into the scullery, while a new door is provided for ready communication between the living-room and scullery. A dustbin might be provided by enclosing the space under the sink if thought desirable, but I would recommend in this design that the occupants of each floor should use the existing dustbin in yard in common. The ground storey would need no alteration; the front living-room remaining as at present, and the back room being devoted to the purposes of a bedroom.

The present wash-house, reached from the yard, will do duty as the scullery of this set of apartments, containing also the coalbox and meatsafe, and the W.C. will remain as at present, save that its use will be reserved to the occupants of the ground floor.

The design shows also the adaptation, as a separate dwelling, of the basement floor. To those, for many there will doubtless be, who will blame the notion of appropriating to the purposes of living and bedrooms any portion of a storey situated even partially underground, I reply that experience proves that, however objectionable, it is a thing that *will inevitably be done* so long as there continue to be numerous poor who are compelled to live near their work, and so long as owners of houses continue to be determined to make the most out of their property. So that rather than adopt a course which cannot affect the evil, by leaving the basement storey *in statu quo*, to be inhabited by some poor people in all its pristine inconvenience and unhealthiness, I prefer to endeavour to point out the means by which these drawbacks may be to some extent alleviated. By the introduction, then, of a new door in the wall dividing the front and back rooms, one of the first *desiderata* of healthfulness, a 'through' ventilation, is obtained. The construction of a partition enclosing a part of the front area under the entrance landing affords ample space for a W.C. and small scullery containing a sink. One of the coal-cellars will thus be utilised for its original purpose, while a convenient meatsafe is reached from the lobby, which, together

with a large closet, is obtained by the introduction of two partitions across the passage.

The small section on line 'A B' shows the means by which light and external ventilation are obtained for the scullery under entrance landing. The flat roof of W.C. being kept at a lower level than the landing, will allow of the introduction between them of an upright sash or fanlight, which, being hung on centres, will provide abundant light and air for this small space.

Having thus thoroughly explained the alterations involved in 'Design A,' which alterations will be seen to be of the most trivial character as compared with the result achieved, we may turn to the consideration of 'Design B,' which is one devised to afford the same accommodation as regards number of rooms as the last, but without lessening the size of the present front rooms, the sculleries in each case being externally added, and certain other advantages gained which will be more fully seen in the course of this description.

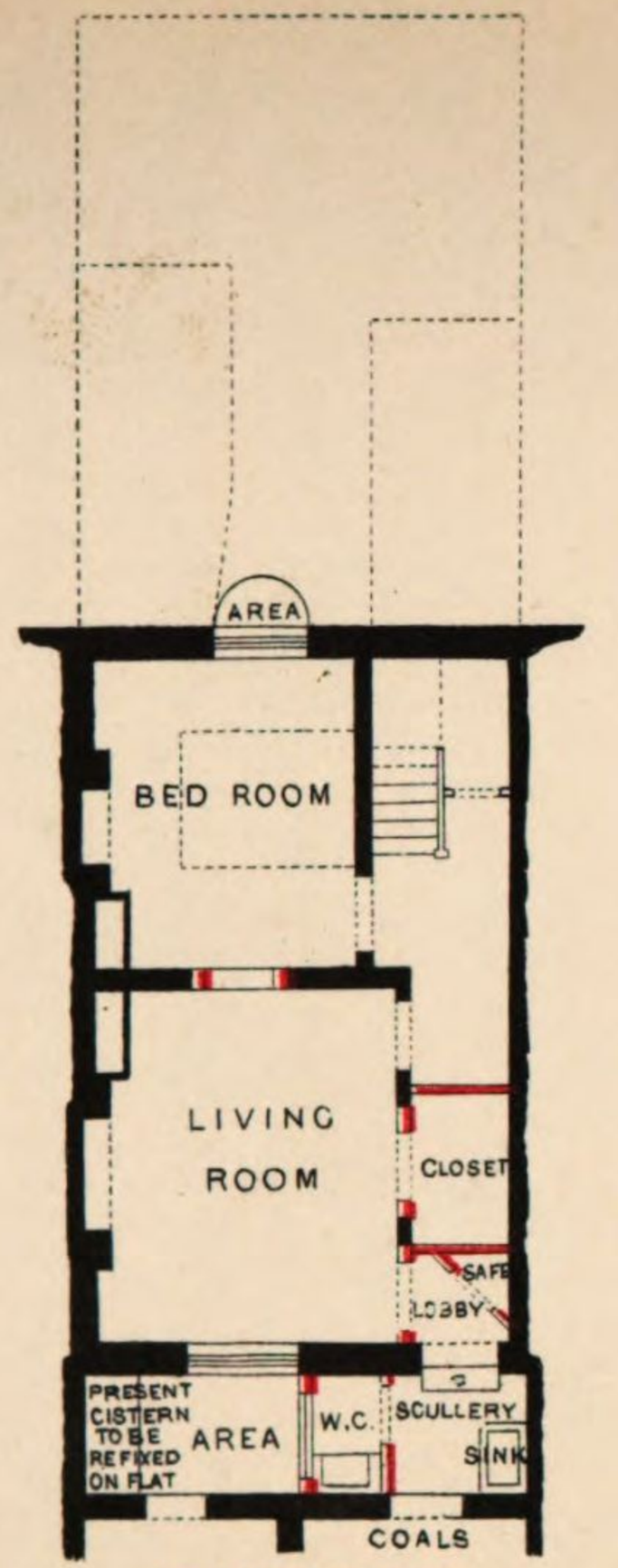
This scheme, then, comprises the addition at the back of the house, of a building three storeys high containing sculleries and W.C.s for the ground, first, and second floors respectively. These additions are in every case reached by new doors to be made in the back wall of the house, on the landing or quarter-space of the stairs between the floor to which the particular scullery appertains and the floor below. Passing into the additions thus provided for the first and second storeys, the scullery is found to be well lit, and provided with a sink and coalbox, with meatsafe over. A door nearly

opposite the one opening from the stairs, leads into the W.C., thoroughly well ventilated, and in which also is an opening into a dustshaft taken down into the bin below, which effectually obviates the necessity of travelling up and down stairs.

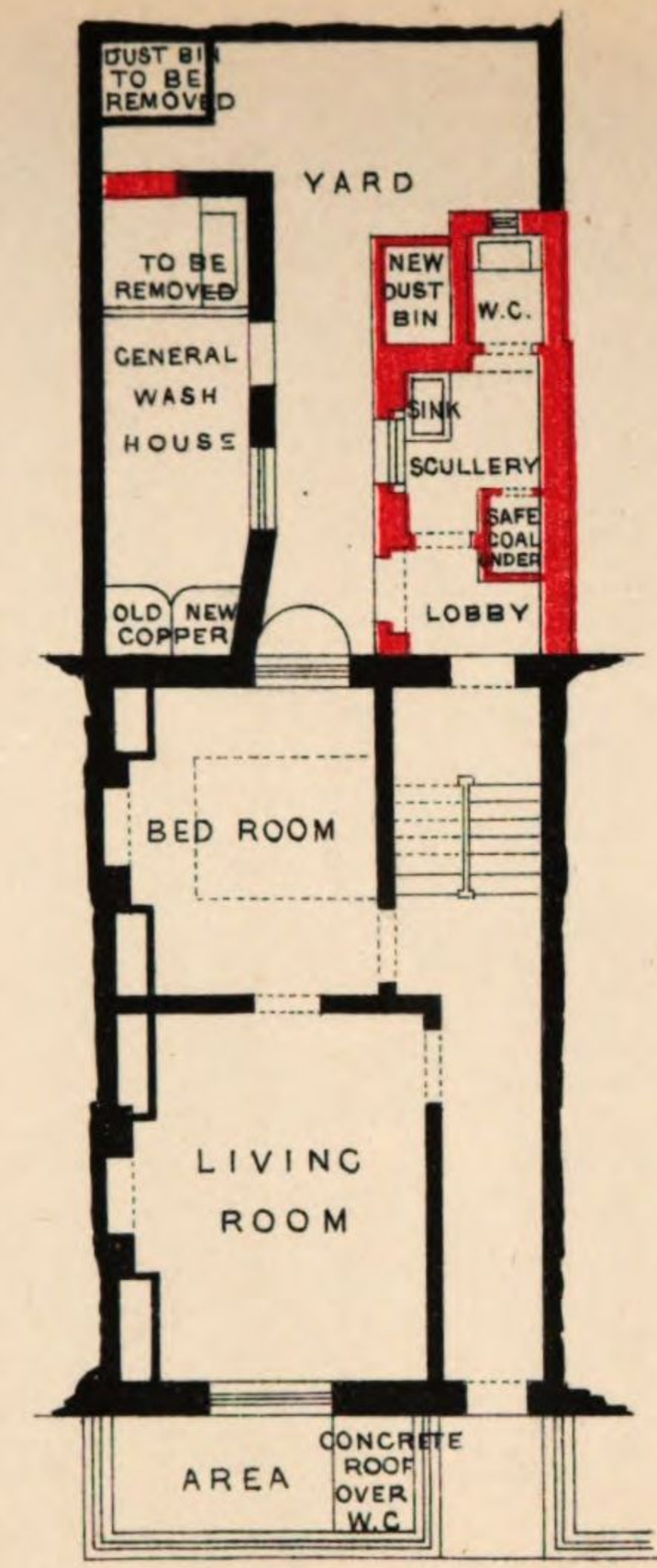
This explanation applies equally to the ground storey, except that, as will be seen by reference to the plates, a trifling alteration is made in the arrangement to admit of a door, common to all, opening into the back yard (which it is contemplated in each of the four designs should be used as a common 'drying-ground'), and an extra safe or closet is obtained in the lobby, arranged for this purpose. The existing back door would, of course, be re-used in the new position. A railing or grating would have to be provided to the area to window of back room on basement to prevent accidents to children, arising from the proximity of the back door. The present wash-house it is proposed to utilise as a wash-house common to all, the space being enlarged by the removal of the W.C., and another copper being provided in addition to the one already existing.

The basement being altered in a manner precisely similar to that proposed by the last design, needs no further explanation.

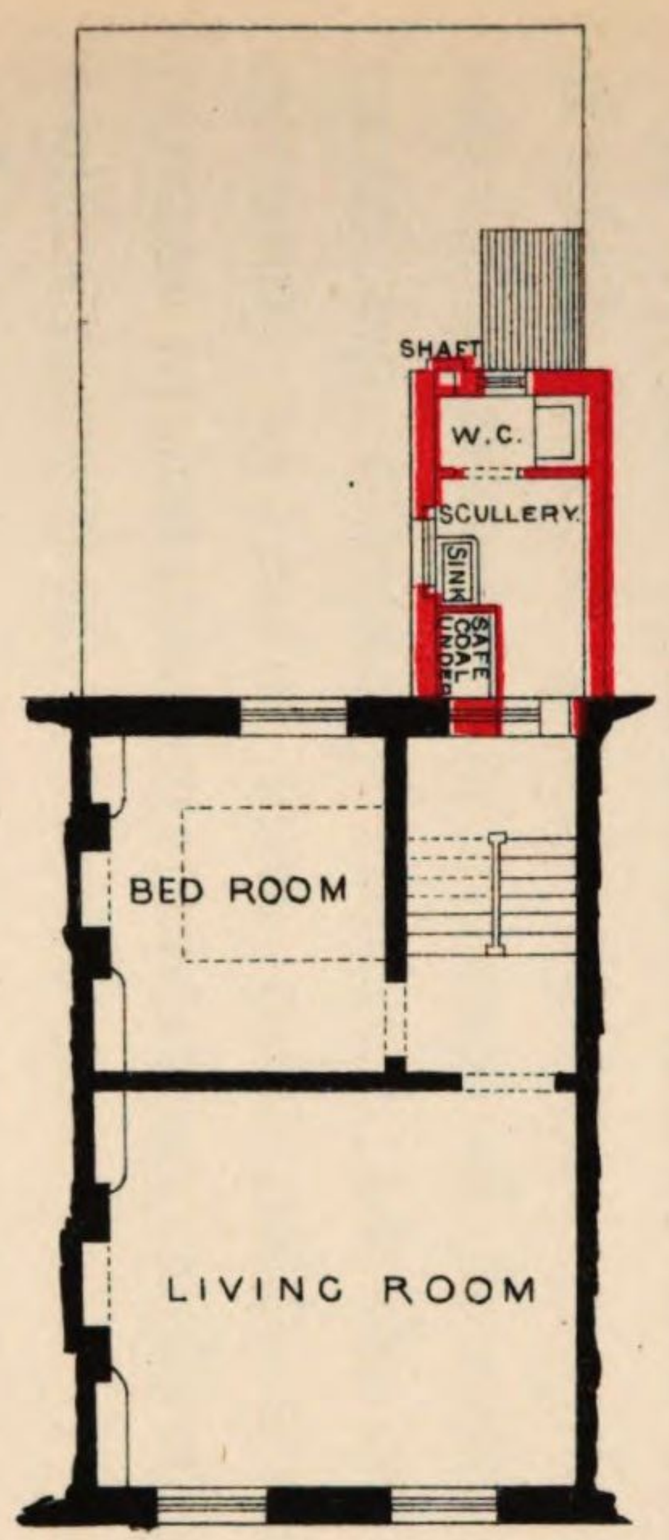
The staircase windows being removed to make way for the new doors opening into the additions, some other means of lighting the stairs must, of course, be provided. This it is proposed to do by inserting glass panels in the new doors, whereby a large amount of light will be borrowed from the sculleries; and further,



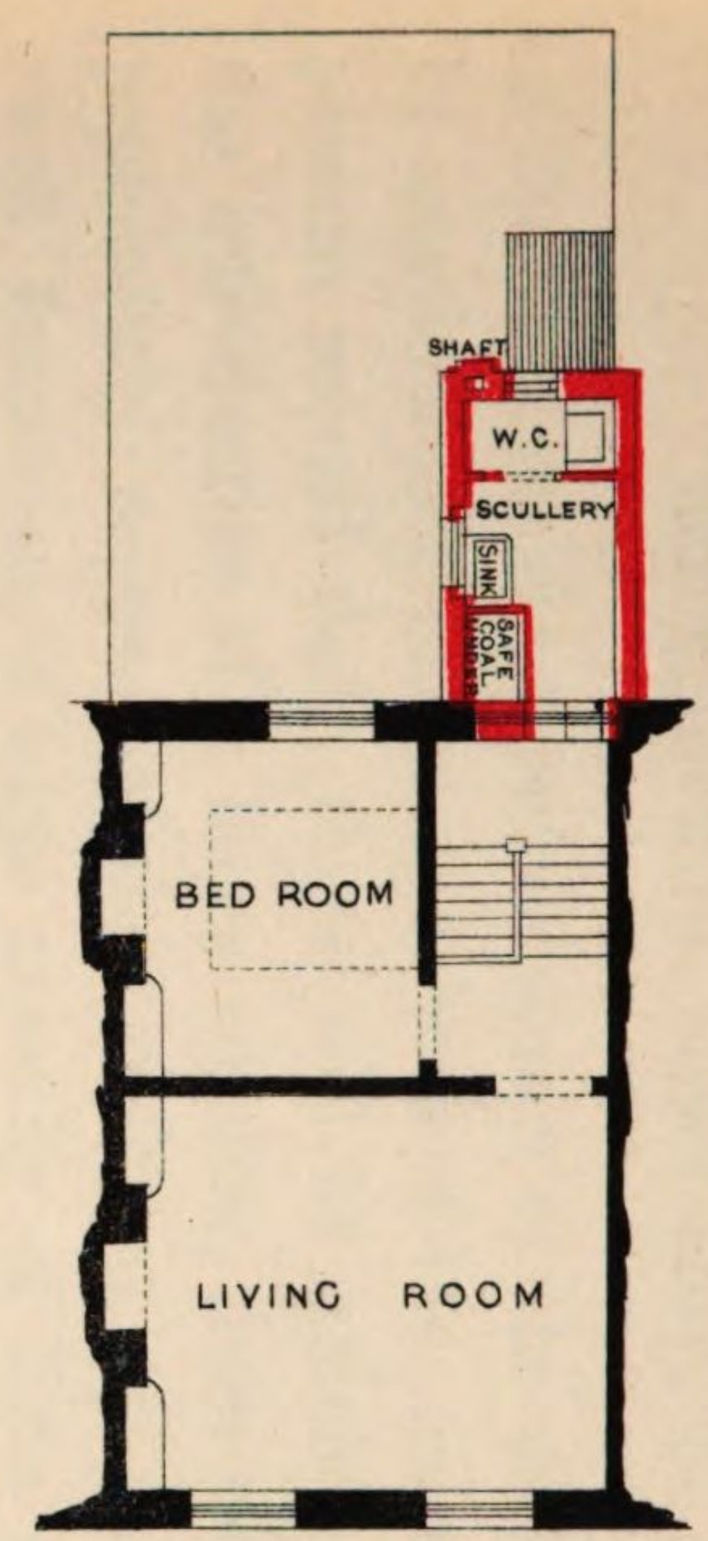
BASEMENT.



GROUND PLAN.



FIRST FLOOR.



SECOND FLOOR.

B. FLETCHER'S MODEL PLANS FOR ADAPTATION OF EXISTING DWELLING HOUSES FOR LETTING IN FLATS. DESIGN B. REGISTERED 22 MARCH 1871.

SCALE. 16 FEET TO ONE INCH.

ALTERATIONS SHEWN IN RED

M & N. HANHART. LITH.

as the roof of the topmost storey of the addition will be considerably below the level of the ceiling of the present second floor, there will be ample space for the introduction of a large window, from which also, particularly supposing the staircase to be of the 'well' formation, a large quantity of light would be obtained.

In 'A' and 'B,' therefore, we have two designs, each of which gives, at a very moderate cost, four distinct sets of apartments (in a house of four storeys), each containing, compactly arranged, all the conveniences necessary to render them comfortable dwellings for persons in humble circumstances, and who do not require more than one bedroom.

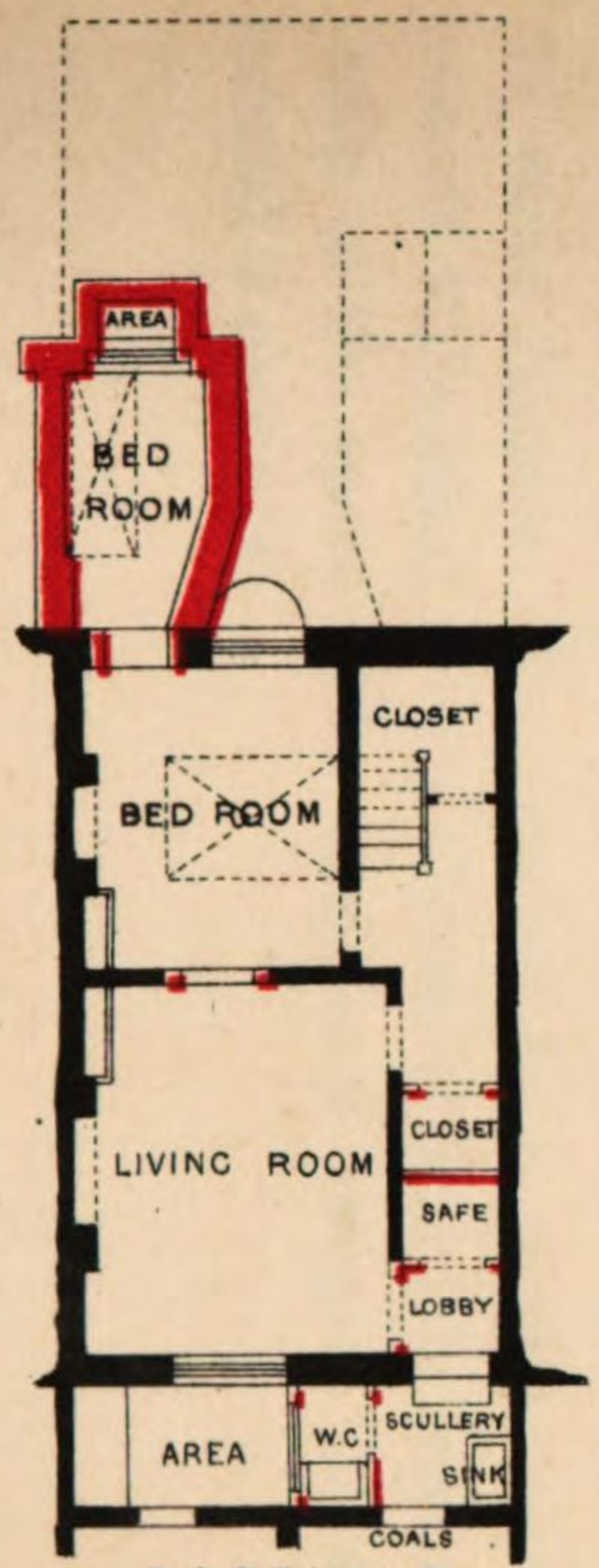
I propose to devote the next chapter to the consideration of designs giving greater accommodation.

CHAPTER V.

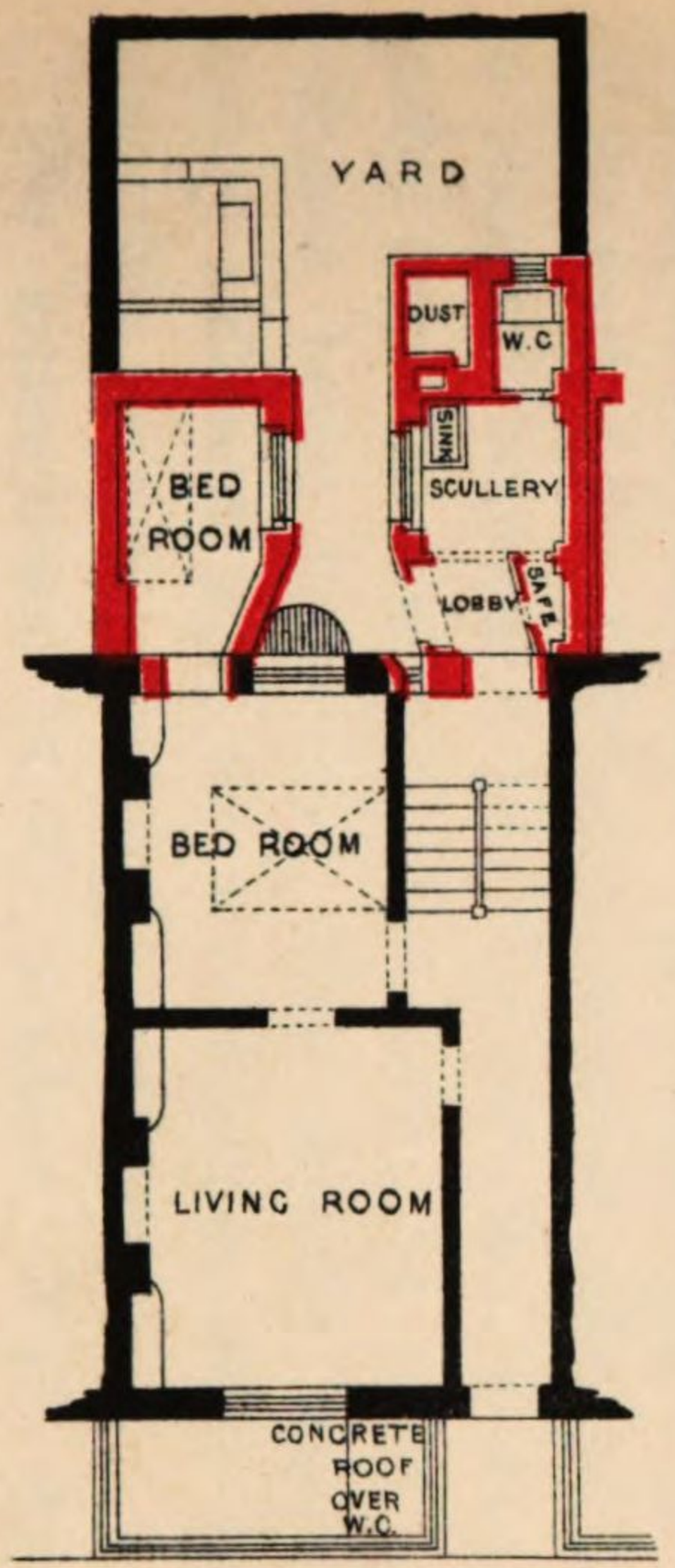
EXPLANATORY OF TWO MORE DESIGNS REGISTERED UNDER THE TITLE 'B. FLETCHER'S MODEL PLAN FOR ADAPTATION OF DWELLING-HOUSES FOR LETTING IN FLATS.'

It is well known to what a terrible extent the dwellings of our poorer classes are, in many cases, overcrowded. Not only among the very poor, the almost destitute, where whole families, and even several families, herd together in one miserable room, to the destruction of health, decency, and morality, but even (though of course to a lesser extent) amongst those of a rather better class, where, from motives of the rigid economy which it is nevertheless still necessary for them to practise, a single living-room and bedroom are made to serve for a much larger number of individuals than it is desirable they should accommodate. It is therefore to show how the extra accommodation required for such cases may be obtained in the simplest manner, that the author now invites the reader's attention to designs 'C' and 'D.'

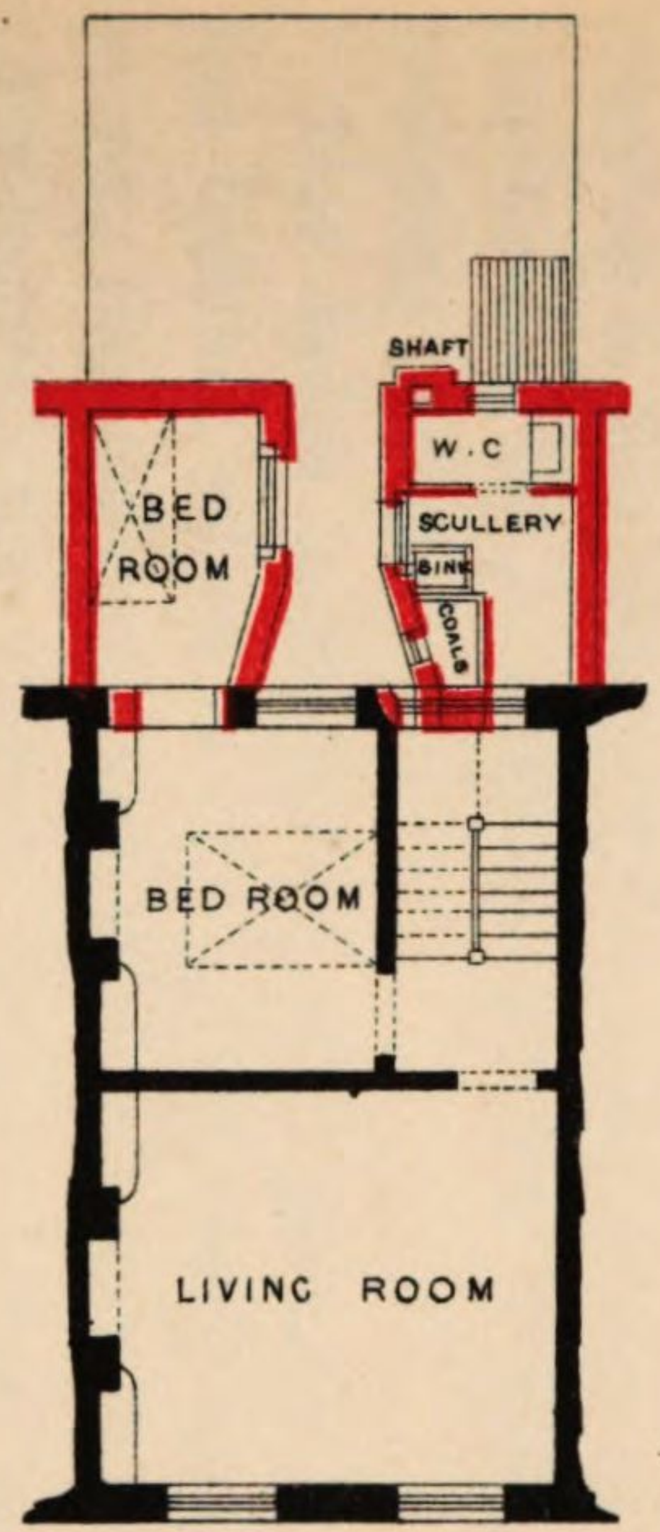
The idea still followed out is that of adapting an existing building to the required purposes, and the plans taken for adaptation are the same as in the last two designs. Indeed, in Design 'C' (Plate 11) we find for consideration a scheme which gives on each



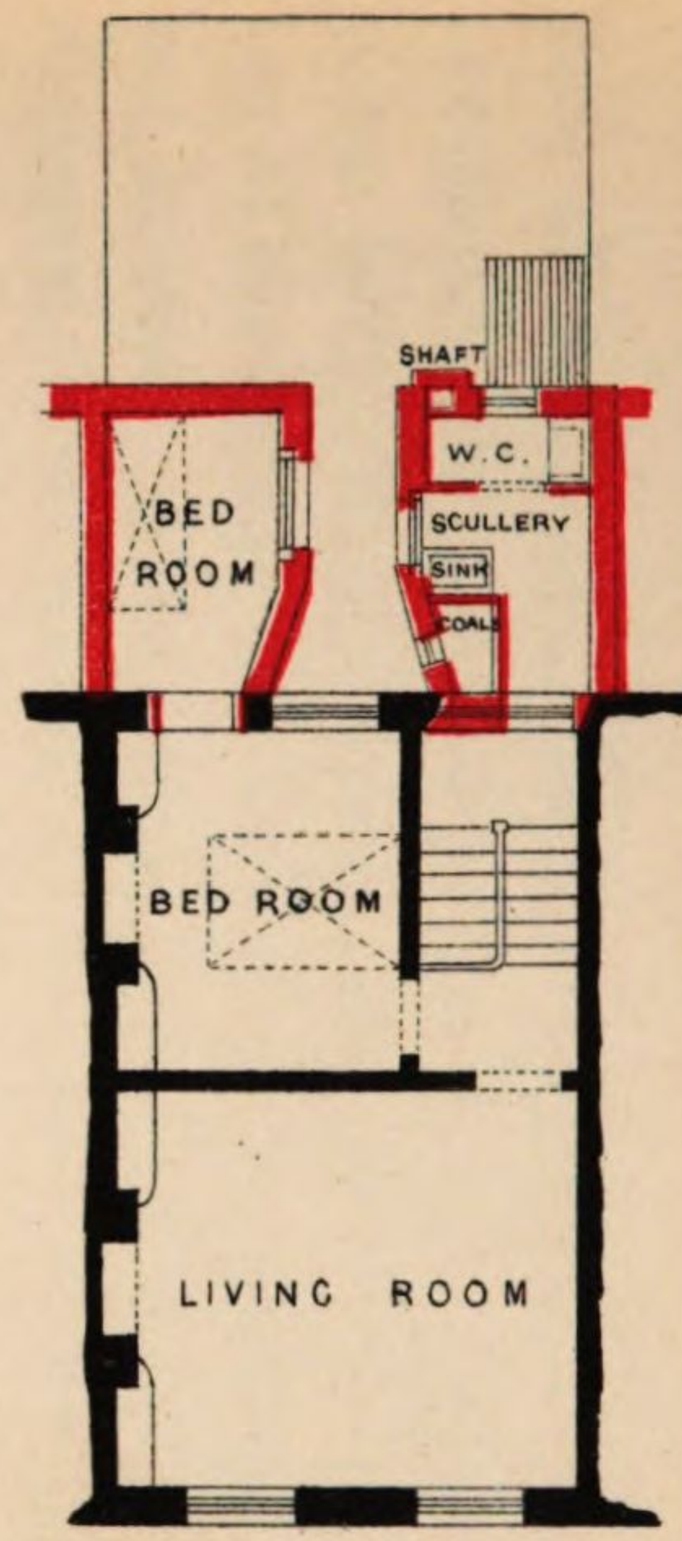
BASEMENT.



GROUND PLAN.



FIRST FLOOR.



SECOND FLOOR.

B. FLETCHER'S MODEL PLAN FOR ADAPTATION OF DWELLING HOUSES FOR LETTING IN FLATS. DESIGN C. REGISTERED 22 MARCH 1871.

SCALE. 16 FEET TO ONE INCH

ALTERATIONS SHEWN IN RED

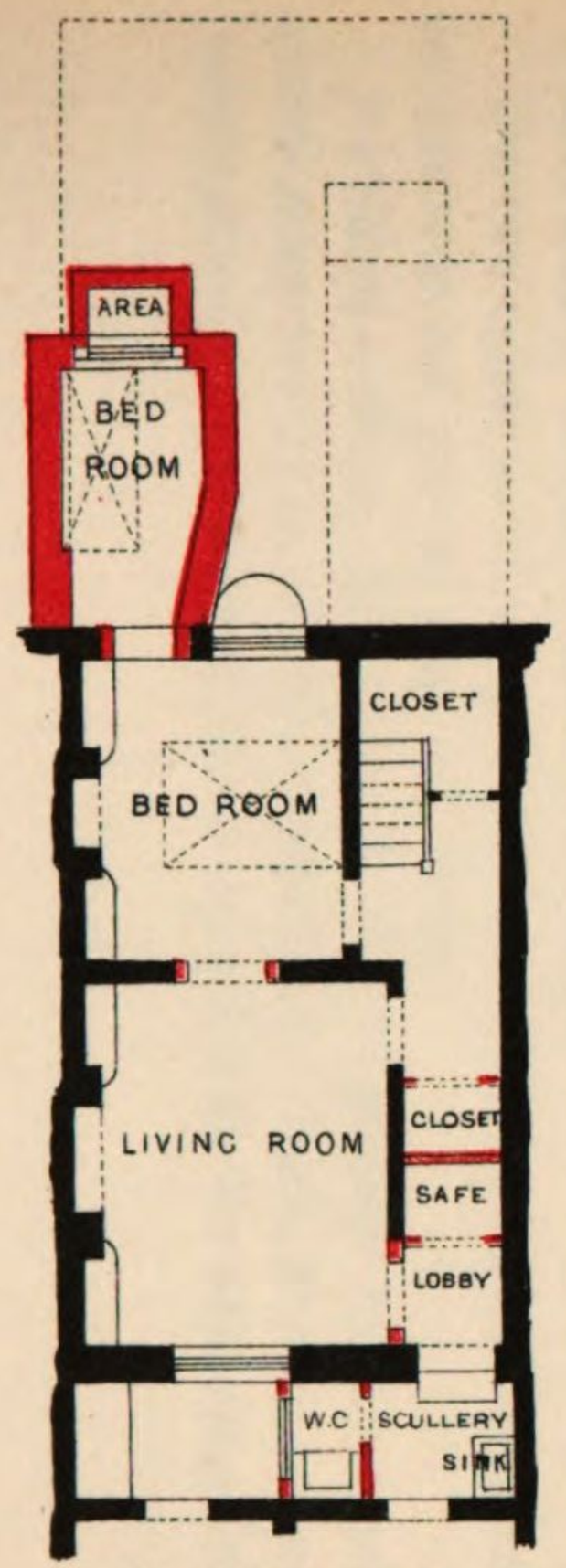
M & N HANHART LITH.

floor all the accommodation contained in Design 'B,' obtained in the same way, but with the addition of an extra bedroom, this room being obtained by building out at the back of the house another addition, containing as many storeys as the house itself, and cutting doorways in the back wall by the side of the existing windows, and opening out of the present bedrooms. A really commodious, and at the same time compact, dwelling is thus obtained for a family in humble circumstances, by a simple alteration involving but a moderate outlay.

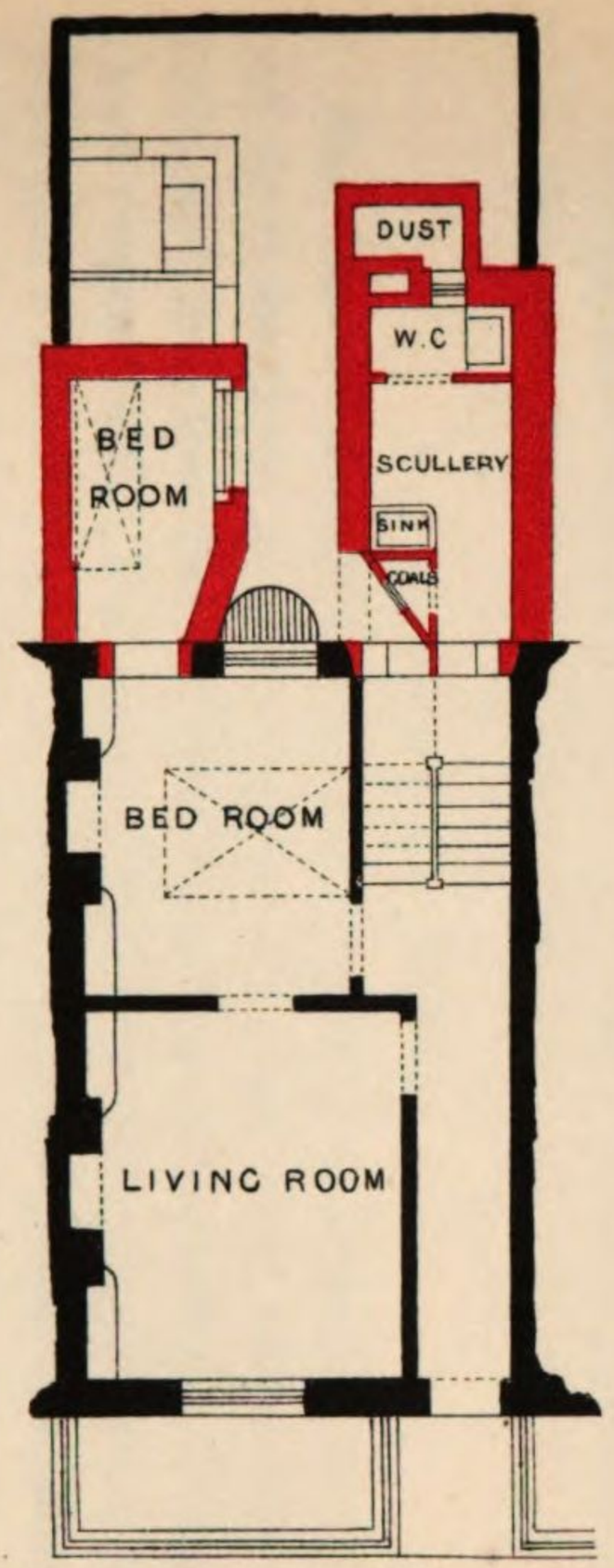
This design includes also a scheme for more perfect lighting, which would be especially valuable, assuming the staircase to be of the description known as 'dog-legged,' the existing windows being removed, as in the last design, to make way for the doors opening into the scullery additions. By constructing a portion of the wall of this addition at an angle, sufficient space is obtained between it and the partition dividing the stairs from the existing back room, to allow of a window being introduced, thus directly admitting amply sufficient light for the staircase, while at the same time providing thorough ventilation.

The arrangement of the scullery, W.C., &c., is similar to that described in the last design, and the sink, dustbin, meatsafe, and coalbox are provided in the same manner. By removal of a portion of the present outbuilding of wash-house a desirable augmentation of the space to be used as a common drying-ground is obtained.

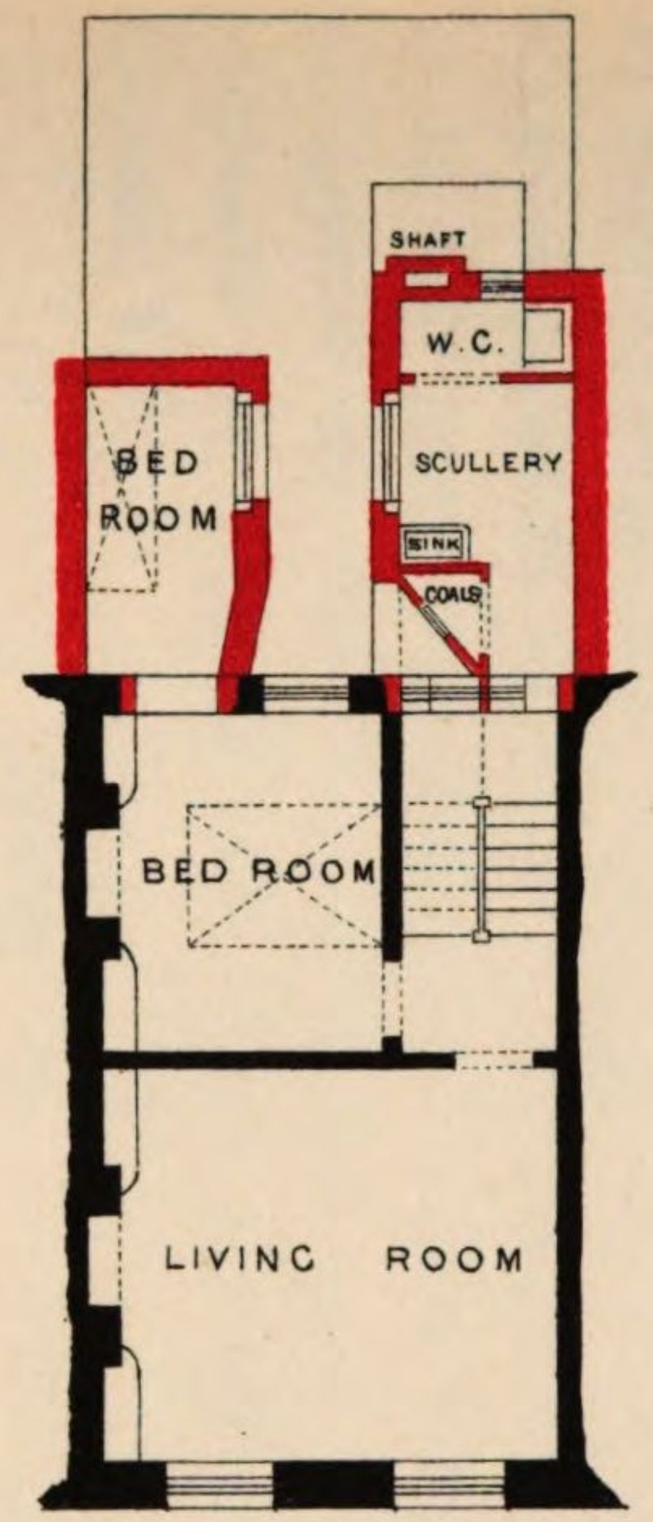
In design 'D' (Plate 12) I give a scheme giving precisely the same accommodation as the last, viz., living-room and two bedrooms, with scullery and appurtenances as before described, but showing a different method of lighting the staircase. Here there is no splay to any portion of the scullery wall, which is carried straight up to the existing back wall of the house, but is arched over for a width of about three feet from the face of the back wall to afford light to windows inserted in the back wall of the staircase, and occupying half its width, the other half being devoted to the doors leading into the sculleries. A splayed piece of partitioning, covered externally with zinc, passes diagonally from the division between the door and the window to the opposite side of the arched opening, and affords an excellent situation for the coal-box and meatsafe, enabling the latter to be thoroughly ventilated into the external air.



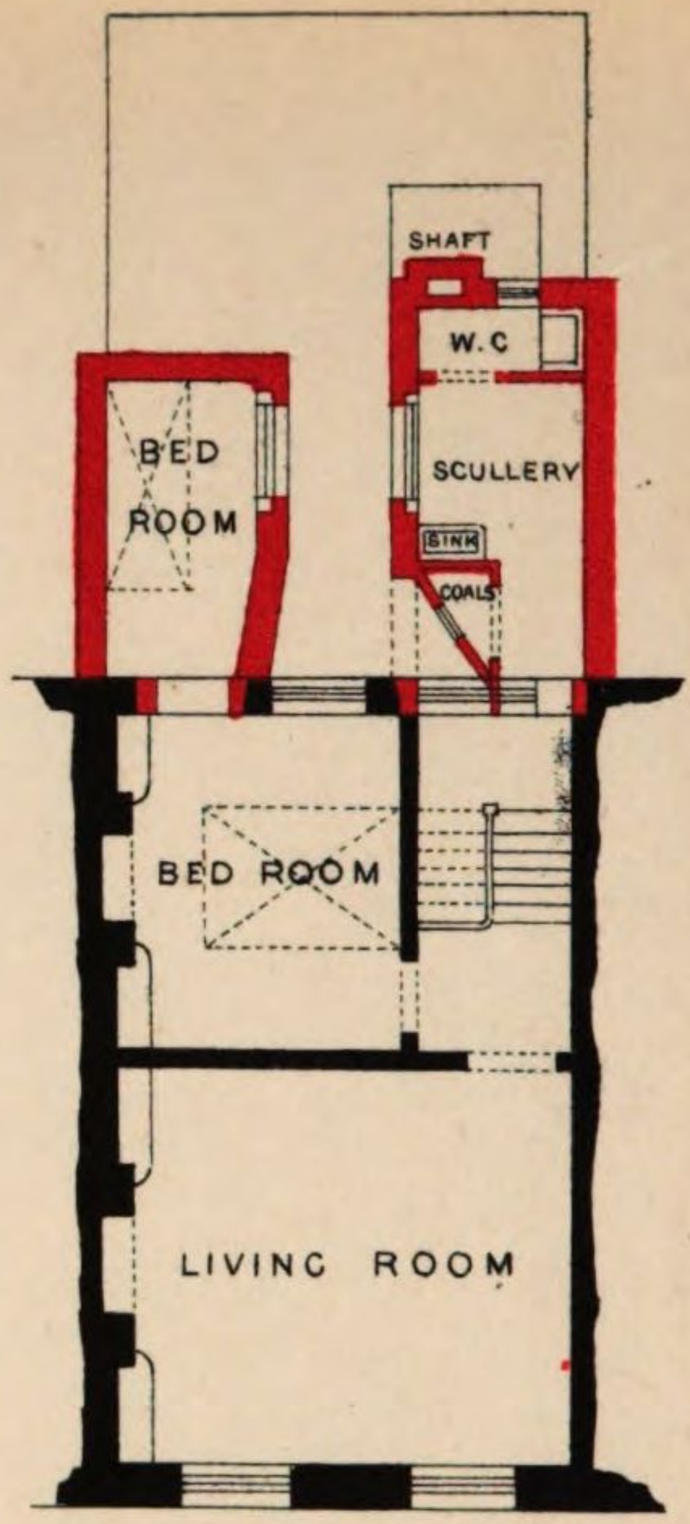
BASEMENT.



GROUND FLOOR.



FIRST FLOOR.



SECOND FLOOR.

B. FLETCHER'S MODEL PLAN FOR ADAPTATION OF DWELLING HOUSES FOR LETTING IN FLATS. DESIGN D. REGISTERED 22 MARCH. 1871.

SCALE 16 FEET TO ONE INCH.

ALTERATIONS SHEWN IN RED.

M.& N HANHART LITH.

CHAPTER VI.

SPECIFICATIONS FOR THE ADAPTATIONS DESCRIBED IN CHAPTERS IV. AND V.

In order to show more clearly the extent of the alterations required in carrying out the adaptations referred to in the preceding chapters, I think it well here to append my detail specification upon which the contracts are founded, and which are referred to in Chapter VII.

DESIGN 'A.'

SPECIFICATION OF WORKS *required to be done in certain alterations to according to the drawings prepared by and under the superintendence of* Mr. B. FLETCHER, A.I.B.A., *Architect and Surveyor*, 24 *Bedford Square, W.C.*

BASEMENT FLOOR.

New Doorways.—In the position indicated on the plan, cut out for and form the three new doorways, one from front room into back room, and the other two opening from front room into the lobby and closet respectively. Put proper lintels over these openings, 4 inches thick and 9 inches longer than width of opening, and line same and jambs with proper rebated jamb linings, which are, together with the doors hung to same and the architrave mouldings (if any), to be of similar description to those of existing doorways on this floor, and to have similar hinges, locks and furniture.

The two upper panels of present door from passage to area are to be removed and ground glass substituted.

Partitions.—Form the closet shown in passage by constructing across same two $2\frac{1}{2}$-inch quarter partitions. Lath, plaster, and twice colour same, or otherwise finish to accord with the adjoining work.

W.C.—Form the w.c. where shown in area with a $2\frac{1}{2}$-inch quarter partition covered externally with zinc properly fixed and soldered, and internally lathed, plastered, and coloured. Form in this partition a $1\frac{1}{4}$-inch casement light, properly hung to $\frac{3}{4}$-inch rebated linings with rounded nosing and architrave, bead and button fastening. Divide the w.c. from the scullery with a $1\frac{1}{2}$-inch square framed partition with door hung in same with proper closet latch and bolt. Fit up the w.c. with proper $1\frac{1}{4}$-inch deal seat, riser, and hinged flap, white earthenware pan, D trap and apparatus, and proper water supply from cistern over complete; 5-inch soil pipe properly connected with drain.

Provide a floor in w.c. of $1\frac{1}{4}$-inch yellow flooring on joists 3 inches by 2 inches.

Render, float, set, and colour the parts of brickwork forming walls of w.c.

Roof of W.C.—The roof of the w.c. is to be kept down in the manner shown in the small section on design 'C,' so as to admit of an upright sash being introduced between roof and the underside of the stone entrance landing, to light and ventilate the scullery. The roof of w.c. is to be flat, or with just sufficient fall to throw off the water, and is to be formed with joists $3\frac{1}{2}$ inches by $2\frac{1}{2}$ inches with $\frac{3}{4}$-inch rough boarding to receive a layer of concrete. The upright sash is to be $1\frac{1}{2}$-inch, glazed with ground or obscured glass, and hung on centres to proper rebated frame. Provide and fix lines, &c., for convenient opening and fastening of same.

Cistern.—Provide and fix over seat of w.c., the full width of closet, 1 foot 6 inches wide and 1 foot 6 inches deep, $1\frac{1}{2}$-inch deal cistern properly ploughed, tongued, dovetailed and strapped, and lined with 6-lb. milled lead. Lay on the water to same with $\frac{3}{4}$-inch supply-pipe and proper ballcock and ball and waste.

Scullery and Sink.—Colour the brick walls of scullery.

Provide and fix where shown in scullery, on proper supports, a sink of galvanised iron. Provide with proper bell-trap and grate, connected with drain by a 3-inch zinc wastepipe. Lay on water from cistern in roof with $\frac{3}{4}$-inch service-pipe and brass bibcock.

Dustcloset.—Enclose under sink with $1\frac{1}{4}$-inch square framing wrought on one side only, to form dustcloset. Hang a door to same with proper knob and button fastening. Provide two boards to keep the dust in, sliding in perpendicular rebated fillets fixed on each side of the interior of the door.

Meatsafe.—Form where shown in angle of lobby a meatsafe, at a height of 3 feet 6 inches from ground and on proper bearers, of $1\frac{1}{4}$-inch square framing, with door hung, the panel of which is to be filled in with perforated zinc. Black japanned knob and button fastening. Fit up with two 1-inch deal shelves, on proper bearers.

Ground Floor.

Sink.—In present wash-house, provide and fix a sink of the size and where shown, and of similar description and fittings to that described on basement.

Coalbox and Meatsafe.—In angle of wash-house, where shown, form an enclosure, with $1\frac{1}{4}$-inch square framing, divided into two compartments in its height. The lower one, 3 feet 6 inches high, is to be for a coalbox; and the upper one fitted with two 1-inch deal shelves, on proper bearers, for a meatsafe. Each division to have a $1\frac{1}{4}$-inch square framed door hung, the upper one to have the panel filled in with perforated zinc. Black japanned knobs, and button fastenings. Provide the coalbox with two sliding boards to keep the coals in, similar to those described for dustcloset.

First and Second Floors.

Work to be taken down.—Take down that part of the partition, with doors in same, dividing the front rooms from the staircase, and re-use in the new positions indicated on plans, to divide the sculleries from the landings, relathing and plastering on both sides, and papering or otherwise finishing to accord with adjoining work.

Partitions.—The new partitions, to divide the living-rooms from sculleries, are to be 3-inch quarter partitions, lathed, plastered, and papered, or otherwise finished, to accord with adjoining work, on each side, and with the two doorways constructed in each, as shown.

Doors.—The new doors, furniture, architraves, and jamb linings, are all to be similar to those to present doorways on these floors.

Coalboxes and Meatsafes.—Construct of the sizes and where shown on the plans, and otherwise in manner precisely similar to that described for ground floor.

W.C.—Enclose, where shown on plans, portions of the sculleries,

with 1½-inch square framing, to form W.C.s, with proper 4-panel square door hung, and fitted with proper closet latch and bolt. These W.C.s to be fitted with seats, pans, apparatus, and cisterns similar to those described to W.C. on basement.

Sinks.—Provide in each scullery, of the size and where shown, and on proper supports, a sink similar to those described for basement and ground storey, and with similar appurtenances.

Dustcloset.—Enclose under each sink to form dustcloset, as described in basement.

Generally to House.

All making good, of old work up to new, is to be properly performed, and all damage done to existing work, by reason of these alterations, whether of carpentry, plastering, papering, painting, or otherwise, is to be properly repaired, and all works to be left clean and complete at the conclusion.

Cisterns.—Remove the present cistern in front area, and refix in roof, over new scullery on second floor, hanging up the cistern to roof timbers with iron straps, or otherwise securely fixing in new position, supplying all necessary bearers and supports.

Provide also, adjacent to the last named, or in such other position as may be most convenient, a new cistern, of similar description and capacity, to be fixed in the same secure manner.

Trim the ceiling for, and provide a trap door, for access to these cisterns, properly hung to 1-inch rounded and rebated linings.

Provide also a short ladder for access to trap door.

Lay on the water to these cisterns, with 1-inch lead supply-pipe from main, with proper ballcocks, utilising the one in present cistern; 1-inch standing wastes.

Painting.—Properly knot, prime, prepare, and paint, all new work usually painted, in four coats of good lead and oil colour, finishing in all cases so as to accord with the old work adjoining.

Glazing.—Glaze all new lights not specified to be ground or obscured, with seconds Newcastle.

DESIGN 'B.'

(DESIGNS 'C' AND 'D' APPENDED.)

SPECIFICATION OF WORKS *required to be done in certain alterations to No.* , *according to the drawings prepared by and under the superintendence of* Mr. B. FLETCHER, A.I.B.A., *Architect and Surveyor*, 24 *Bedford Square, W.C.*

FOUNDATIONS.

Excavate for the footings of walls of new scullery, w.c., &c., to the depth of one foot below present surface of back yard. If the nature of the ground be found to require it, dig out trenches for, and throw in a foundation of concrete; but prices for the digging and for the concrete, at per cube yard, are to be named in the estimate, at which these works can be executed, or omitted, as may be found requisite.

NEW BRICKWORK.

Cut perpendicular indents in the present back wall of house for reception of new work, and carry up the new wall on proper footings with sound square stock bricks and good mortar (one part lime to three of sand) in parallel courses, lining with the old work. Axed arches to all outside reveals. Brick up, as shown on plan, the present doorway into w.c. in yard. Provide also the new brickwork to doorways from landings of stairs into sculleries of first and second floors.

Damp Course and Iron Bond.—Two courses of slates in cement are to be laid throughout all new walls at level of ground, and a tier of hoop-iron bond, one layer to each half brick in thickness of the wall, is to be introduced at level of each floor, and once in height of ground floor.

Dustbin.—Form in half brick the new dustbin where and of the size shown.

NEW OPENINGS.

Cut out for and form the new doorways shown on basement plan, from front room into bedroom, also from front room into cupboard and lobby. Form also the new doorways shown from landings into new sculleries, and the opening for new window over the uppermost of these new doorways.

Present Work to be Removed.

The present erection of dustbin in yard. The partition dividing present w.c. from wash-house, together with the seat and appurtenances of w.c., so as to throw the space at present occupied by w.c. into the wash-house.

The sashes and frames, &c., to present staircase windows.

The present back door into yard, which is to be re-used in new position shown on drawing.

All materials taken down, and which cannot be re-used in the alterations, are to become the property of the contractor, and are to be allowed for in his estimate.

Basement.

New Doorways.—Put proper lintels over the openings before specified, to be made for the three new doorways, 4 inches thick, and 9 inches longer than width of opening; and line same and jambs with proper linings, which, together with the doors and architrave mouldings (if any), hinges, locks, and furniture, are to be of similar description to those of existing doorways on this floor. The two upper panels of present door from lobby into area are to be removed and ground glass substituted.

Partitions.—Form the closet shown in passage, by constructing across same two $2\frac{1}{2}$-inch quarter partitions. Lath, plaster, and twice colour same, or otherwise finish to accord with the adjoining work.

W.C.—Form the w.c. where shown in area, with a $2\frac{1}{2}$-inch quarter partition, covered externally with zinc, properly fixed and soldered, and internally lathed, plastered, and coloured. Form in this partition a $1\frac{1}{4}$-inch casement light, properly hung to $\frac{3}{4}$-inch rebated linings, with rounded nosing and architrave, bead and button fastening. Divide the w.c. from the scullery with a $1\frac{1}{2}$-inch square framed partition, with door hung in same, with proper closet latch and bolt. Fit up the w.c. with proper $1\frac{1}{4}$-inch deal seat, riser, and hinged flap, white earthernware pan and trap, and apparatus and proper water supply from cistern over, 5-inch soil-pipe properly connected with drain.

Provide a floor in w.c. of $1\frac{1}{4}$-inch yellow flooring, on joists three inches by two inches.

Render, float, set, and colour the parts of brickwork forming walls of w.c.

Roof of W.C.—The roof of the w.c. is to be kept down in the manner shown in the small section on design 'C,' so as to admit of an upright sash being introduced between the roof and the underside of the stone entrance-landing, to light and ventilate the scullery. The roof of w.c. is to be flat, or with just sufficient fall to throw off the water, and is to be formed with joists $3\frac{1}{2}$ inches by $2\frac{1}{2}$ inches, with $\frac{3}{4}$-inch rough boarding to receive a layer of concrete. The upright sash is to be $1\frac{1}{2}$-inch, glazed with ground or obscured glass, and hung on centres to proper rebated frame. Provide and fix lines, &c., for convenient opening and fastening of same.

Cistern.—Provide and fix over seat of w.c., the full width of same, 1 foot 6 inches wide and 1 foot 6 inches deep, $1\frac{1}{2}$-inch deal cistern properly ploughed, tongued, dovetailed and strapped, and lined with 6-lb. milled lead. Lay on the water to same with $\frac{3}{4}$-inch supply-pipe, and proper ballcock and ball, and waste.

Meatsafe.—Form where shown in angle of lobby a meatsafe, at a height of 3 feet 6 inches from ground and on proper bearers, of $1\frac{1}{4}$-inch square framing with door hung, the panel of which is to be filled in with perforated zinc. Black japanned knob and button fastening. Fit up with two 1-inch deal shelves, on proper bearers.

Scullery and Sink.—Colour the brick walls shown in scullery.

Provide and fix where shown in scullery, on proper supports, a sink of galvanised iron. Provide with proper bell-trap and grate, connected with drain by a 3-inch zinc wastepipe.

Lay on the water from cisterns on flat with $\frac{3}{4}$-inch service-pipe, and brass bibcock.

Dustcloset.—Enclose under sink with $1\frac{1}{4}$-inch square framing, wrought on one side only, to form dustcloset. Hang a door to same with proper knob and button fastening. Provide two boards to keep the dust in, sliding in perpendicular rebated fillets fixed on each side of the interior of the door.

Ground Floor.

New Copper.—Provide and set in brickwork where shown, a new copper of similar description and size to the present one.

Iron Grating.—Over area of basement-window provide and fix an iron grating to prevent accident to persons stepping from back-door.

Doors.—In the new back doorway, the present back door is to be re-used, the present upper panels being taken out and replaced with ground glass, and all damage caused to linings, &c., of present back doorway is to be made good. The doors to scullery and w.c. are to be $1\frac{1}{2}$-inch four-panel square doors, hung with proper butt hinges. The scullery door to have good iron rim lock and brass furniture, and the w.c. proper closet latch and bolt: $1\frac{1}{4}$-inch single rebated and rounded jamb linings.

Windows.—The new window in scullery is to have $1\frac{1}{2}$-inch ovolo sashes, in deal cased frame, proper sunk sill, axle pulleys, good lines, and spring sash fastening, the upper sash only to be hung. Proper $\frac{3}{4}$-inch rounded jamb linings, and 1-inch rounded window-board.

The w.c. to have $1\frac{1}{4}$-inch casement light, hung to $1\frac{1}{4}$-inch rebated and rounded linings, and with black japanned button, and proper bolt.

Dustbin.—The cover to new dustbin to be of $\frac{3}{4}$-inch matched and beaded boarding, strongly ledged, with flap hung in same, with proper T hinges. A proper ledged sliding door with rebated fillets is to be fixed in front of dustbin for convenient removal of dust.

Stone Step.—If there be a stone step at present back door, same is to be re-used to new back door; if none, provide and fix a tooled York step, with proper holes cut for ends of door posts.

Sink.—Provide and fix where and of the size shown, proper galvanised iron sink, with hole cut and dished to receive brass bell-trap and 3-inch zinc wastepipe. Lay on water from cistern with $\frac{3}{4}$-inch service-pipe and brass bibcock.

Floor.—To be $1\frac{1}{4}$-inch yellow deal, on joists 5 inches by 2 inches, plates 4 inches by 3 inches.

Skirting.—To be of Roman cement, square, and 7 inches high.

W.C.—To be fitted with proper $1\frac{1}{4}$-inch deal seat, riser and hinged flap, white earthenware pan, D trap, and apparatus, 5-inch soil-pipe properly connected with drain, and with proper water supply from cistern over.

Roof of W.C.—To have ceiling joists 3 inches by 2 inches, lathed and plastered. Rafters 4 inches by 2 inches forming lean-to roof against party wall covered with $\frac{3}{4}$-inch rough boarding and rendered with cement.

Cistern.—Provide and fix over seat of w.c., the full width of closet, 1 foot 6 inches wide and 1 foot 6 inches deep, 1½-inch deal cistern properly ploughed, tongued, dovetailed and strapped, and lined with 6-lb. milled lead. Lay on the water to same from main with ¾-inch supply-pipe and proper ballcock and ball and waste.

Meatsafe.—Form where shown in angle of lobby a meatsafe, at a height of 3 feet 6 inches from ground and on proper bearers, of 1¼-inch square framing, with door hung, the panel of which is to be filled in with perforated zinc. Black japanned knob and button fastening. Fit up with two 1-inch deal shelves on proper bearers.

Coalbox and Closet.—Form where shown with 1½-inch square framing divided into two compartments in the height, the lower one 3 feet 6 inches high for coalbox, and the upper one fitted with two 1-inch deal shelves on proper bearers. Each division to have square framed door hung, with black japanned knobs and button fastenings. Provide the coalbox with two boards sliding in perpendicular rebated fillets on each side of interior of door to keep in the coals.

First and Second Floors.

Partitions.—To be 2-inch quarter partitions, dividing sculleries from w.c.s, and to be lathed and plastered both sides.

Floors and Skirtings.—To be similar to those described on ground floor, but to have joists 7 inches by 2½ inches.

Doors.—To be as described for ground floor, with exception of doors from stairs into sculleries, the upper panels of which are to be glazed with ground glass, and which are to be finished on the side next stairs in manner to accord with other doors on landing of the floor to which the sculleries respectively belong.

Alteration of Stairs.—If it be found that there is not a quarter space on stairs outside the new doorway into scullery, the stairs must be so altered as to give one, by forming two winders instead of one in the flight descending to the floor below.

Windows.—The present staircase windows are, if possible, to be re-used in the sculleries. If this be found impracticable, the scullery windows are to be as described for ground floor, as are also the windows in w.c.

W.C.s, Cisterns, and Sinks.—All to be as described to ground floor.

Dustshaft.—Form where shown in corner of w.c.s doors to dust-shaft, at a convenient height from floor, 14 inches wide and 18 inches high, hung to proper rebated frames and with black japanned knobs and button fastenings.

Coalboxes and Meatsafes.—To be as described for coalbox and closet on ground floor, but in the wall at back of upper division an opening is to be formed 9 inches square with proper rebated linings and filled in with perforated zinc.

Generally to House.

Roof over Sculleries.—The roof over new addition containing sculleries, &c., is to be a flat formed with joists 7 inches by 2½ inches, 1-inch rough boarding, and No. 12 zinc laid with proper rolls, and well turned up against and into brickwork. Provide and fix 3-inch iron rain-water-pipe and head from this flat, properly connected with same and drain.

The new brickwork is to be carried up to a height of 15 inches above level of flat, and finished with a coping of tooled Yorkstone, 12 inches by 3 inches, weathered and throated.

Cisterns.—The present cistern in front area is to be removed and re-fixed on this flat. Provide also adjacent to same a new cistern of similar description and capacity, and provide and fix all bearers and supports necessary to properly secure these cisterns. Lay on water to same from main with 1-inch lead supply-pipe with proper ball-cocks and balls and standing wastes, utilising as far as possible the apparatus now in present cistern.

Window over Flat.—In the space of back wall of house between the zinc flat and the ceiling of second floor, cut out for and form a window 3 feet high and 4 feet wide, with 1½-inch sash, hung on centres to proper rebated frame, and with proper lines, &c., for convenient opening and fastening of same.

Making Good.

All making good of work disturbed and damage occasioned by reason of these alterations, whether to carpentry, plastering, papering, painting, or otherwise, is to be properly performed, and all works are to be left clean and complete at the conclusion.

Painting.—Properly knot, prime, prepare and paint all new work usually painted, in four coats of good lead and oil colour, finishing in all cases so as to accord with the old work adjoining.

Plastering and Colouring, &c.—Lath, plaster, float, and set all new ceilings. Plaster, float, and set all new walls.

Whiten all new ceilings and soffits. Colour the walls of new sculleries.

Glazing.—Glaze all new lights not specified to be ground, with seconds Newcastle.

Papering.—Paper all new walls and partitions not specified to be coloured, and all parts damaged and disturbed by reason of these alterations, with paper similar to that of the old parts adjoining.

DESIGN 'C.'

SPECIFICATION OF WORKS, *additional to those described in foregoing Specification, necessary for the carrying out of the Additions and Alterations shown in Design 'C.'*

OLD WORK TO BE REMOVED.

Take down and remove the present erection of wash-house, except in so far as the existing walls may be re-used in the new addition containing bedroom. Take down and remove the present copper and brick setting of same.

NEW DOORS AND WINDOWS.

Cut out for and form the new openings from present into new bedroom on each floor, and fit with jamb linings, door and furniture, to accord in every respect with other door in present bedroom in each case respectively.

Cut out for and form the new narrow window openings as shown, to light staircase, and fit with sash windows and frames of similar character, and finish, as far as may be, in same manner as present staircase windows to be removed.

The new doors from stairs into sculleries are not, in this design, to have glazed panels, but are, in other respects, to be as specified for design 'B.' The windows for new bedrooms are to be similar to those specified for sculleries.

EXCAVATION.

In addition to the excavation specified for design 'B,' excavate

CHAPTER VII.

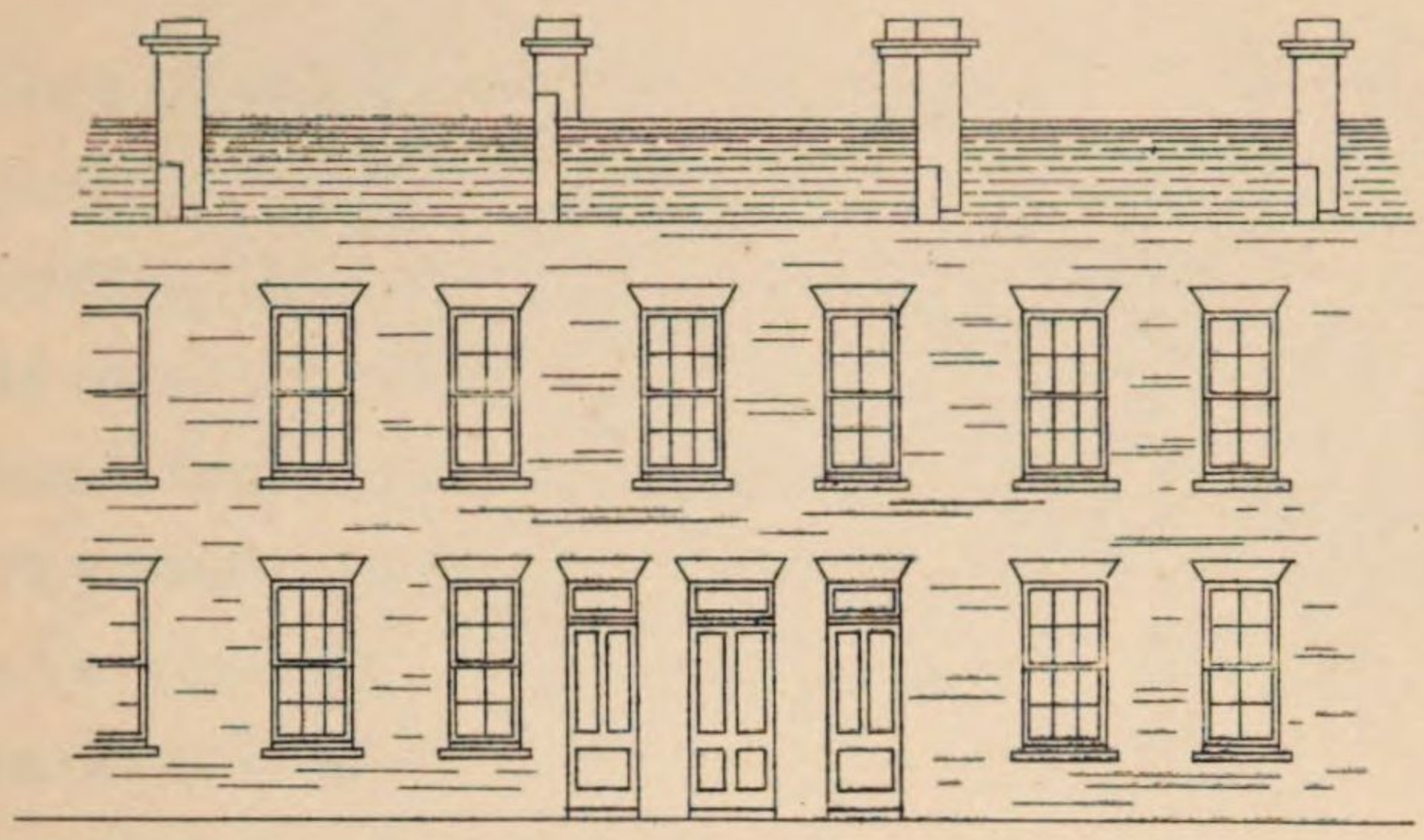
SUGGESTIONS FOR THE CONVERSION OF THREE NARROW-FRONTED TENEMENTS INTO TWO DOUBLE-FLAT HOMES YIELDING AN IMPROVED RENTAL.

In the preceding chapters I have been dealing with the adaptation of a good class of house (16 feet 8 frontages from centre of one party wall to centre of the other party wall), and have shown my four registered designs; and the cost and result will be dealt with in Chap. VIII. This chapter I propose to devote to the consideration of an inferior class of property altogether, namely, houses having a frontage of 12 feet only within walls.

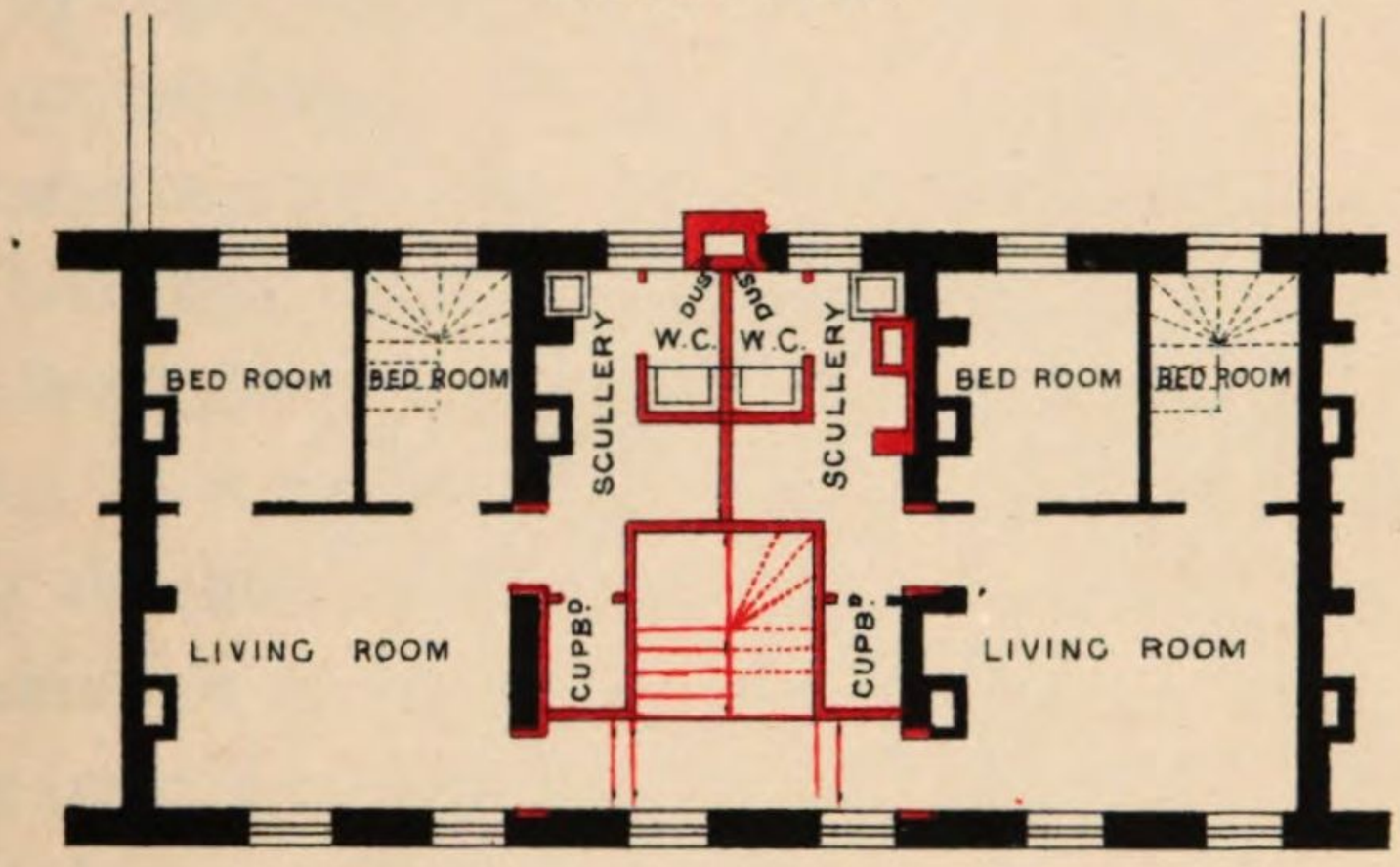
I may premise by saying I cannot give the builders' contracts to confirm what I shall advance, as my clients are not intending to alter this property at present.

In dealing with a street of this description, I would commence by doing away with each third house (see Plate 13), making such third house into scullery with kitchen range (having oven but not boiler), sink, &c. The front portion I devote to three lobby entrances, one for each of the ground floor flats and the third lobby for the two upstairs sets of flats, which are reached thence by stone staircase. The under part of this staircase is utilised for coal-closets and lobbies to

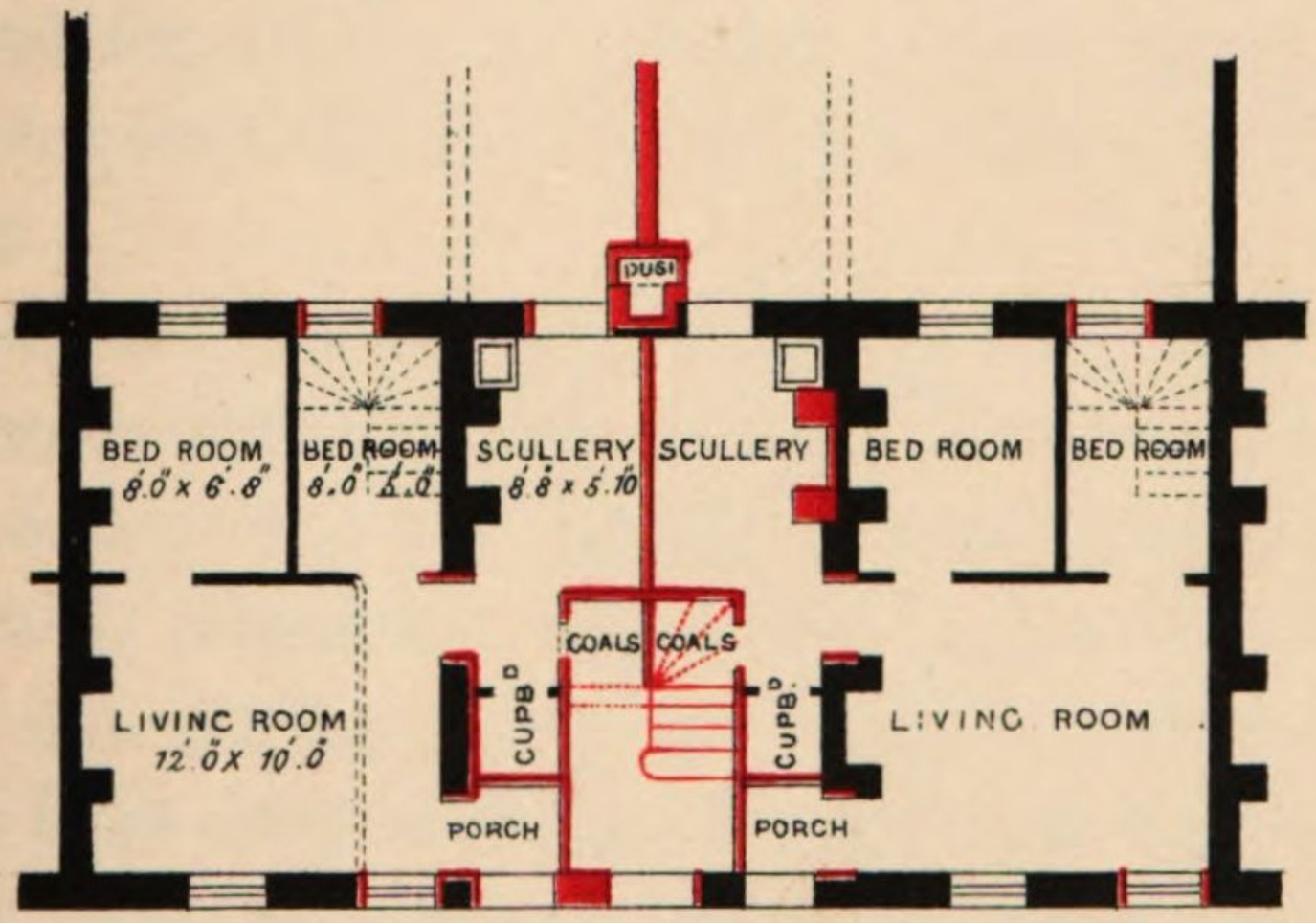
PLATE. 13.



ELEVATION.



PLAN OF FIRST FLOOR.



PLAN OF GROUND FLOOR

SCALE. 16 FEET TO ONE INCH

ALTERATIONS SHEWN IN RED

REGISTERED JUNE 5TH 1871.

M & N. HANHART LITH.

sculleries; all which is shown on the plan. The existing back parlour fireplace and chimneypiece remain for one scullery, and for the other scullery I build fire-place as shown. With regard to the present partitions on ground floor, that running from front to back of house at present dividing the front parlour from staircase I remove entirely, increasing thereby the width of front parlour 3 feet 1 inch, and doing away with the circular corner. The back parlour I do not touch except by removing doorway and door from A to B, so as to communicate direct with sitting-room. The present staircase I remove entirely and convert the space into a bedroom, 10 feet long and 5 feet wide. The present front door and frame I remove from C to D. I then put in C an ordinary window-frame and sashes, keeping the line of window-sill of adjoining window and making it to correspond in appearance with the window over it on first floor. The front door E is not touched, but serves as the new front entrance for the right-hand flat, the present door and frame of that set being used for the entrance door of the upper sets (F to G on plan), the opening F being treated like the opening C.

Further, the ground-floor rooms would retain the existing waterclosets in back gardens or yards, and the present defective water supply thereto from water-butts (which frequently won't hold water and want cleaning out, having no covers) would be superseded by water from cisterns which I place over cisterns on first floor, thus giving excellent force of water (so much

needed). I need not, I think, describe the first floor, because it is so very similar, and a reference to the plan which I have given of this floor will, I trust, fully explain it.

I believe this mode of dealing with existing houses would at once get rid of the wretchedly small back room on every floor of every house so altered, and I can scarcely conceive a greater advantage, nor would the reader if he had had my experience of such rooms. Some rooms like this, only 6 or 7 feet in their greatest width (being of course smaller where the chimneybreast with fireplace projects into the room) and 10 feet deep, I have seen occupied by a man, his wife, and four children, having to cook, wash, eat, drink, and sleep in that one room. Well may disease be propagated. Of course we are all aware that there is an Act to prevent overcrowding, but it is not, nor do I well see that it can be, efficiently enforced. At all events the old adage of prevention being better than cure is applicable. Prevent the rooms being so used by making them non-existent: this I propose. I would here digress, that I may not be misunderstood. I do not want to insist on three rooms or two rooms as absolutely necessary; because in my opinion we require houses of all descriptions, suited to single people; married people having no family (or no children living with them); married people with only very young children; married people with children of one sex only, female or male, living with them; and married people having both sons and daughters living with them. Now, necessarily, each of

these different classes of families requires different accommodation, or at least can put up with less and yet conform to all the requirements of health and decency. It is better for twice the number of people to live in two rooms than half the number in one room, because they get a change of atmosphere.

When altered we should have four sets comprising in each—

	Ft.	In.		Ft.	In.	
Living-room . .	12	0	×	10	0	(exclusive of bay-window)
Bedroom . .	8	0	×	6	8	
Bedroom . .	8	0	×	5	0	
Scullery . . .	8	8	×	5	10	

In addition there will be extra conveniences, as large closets at back of porch, and coal-cellar. For so much accommodation 5*s*. each might easily be obtained, and in the next chapter we shall have to consider the interest we shall obtain from the necessary outlay.

CHAPTER VIII.

EXPLANATORY OF THE COST OF BUILDINGS ACTUALLY ERECTED, AND COMPARISON WITH OTHER BUILDINGS—COST OF ADAPTATION OF EXISTING BUILDINGS TO THE DESIGNS DESCRIBED IN PRECEDING CHAPTERS.

I NOW have to consider the all-important question of cost, and shall show that one of the strongest recommendations to the adoption of my plans is, that by them new houses can be built and existing ones altered at a fair remunerative interest on the required outlay of money.

Clearly, if we leave philanthropy out of the calculation, and rest on commercial enterprise alone, we may be certain that no plans will be adopted by the commercial world which fail to show a good rate of interest on capital.

Firstly, let us take the cost per room of some of the existing model buildings, and we find—I quote from Mr. Roberts's 'Dwellings of the Labouring Classes'—that the cost per room of the Victoria Lodging House was nearly 60*l.*; the Columbia Square 106*l.* per room; Rochester Buildings over 96*l*; and Peabody Square over 113*l.*; while ordinary builders, working with the disadvantage of borrowed capital, build at a cost of 31*l.* per room. Here of course is one reason why

these block buildings do not pay, and why they declare dividends of such an uninviting amount as (I am still quoting from Mr. Roberts's work)—

	Per cent.
Metropolitan Association for Improving the Dwellings of the Industrial Classes	3½
Marylebone Association	2
Central London Dwellings Improvement Company . .	3
Strand Buildings Company	4½
London Labourers' Dwelling Society (Limited) . .	5
Improved Industrial Dwellings Company (Limited) . .	5
London Corporation Buildings . (estimated return) over	4

All then fail in the essential point of profit, as I do not find that any reserve fund is provided to recoup the capital, and the reader may be surprised to hear that my model buildings, while they are at least as good in plan and in the accommodation given, will pay a good rate of interest. Of this I cannot expect to convince him unless I can produce facts in confirmation.

Fortunately, unlike most propounders of something new, I can do this, and I will now show the outlay in building the model homes in Pentonville, which were built last year. My client determined to build one-half the block, for fear of non-success as to letting, and the total cost, including architect's fees, was 1,118*l.* By referring to the plans, sections, and perspective I have given, the reader will understand the half includes two of the bay windows shown and one entrance door, and comprises eight distinct homes; each having plumber's watercloset, sink (water laid on thereto), range, coal-cellar, and cupboards. The sizes of the rooms are also

marked on the plan. The present rentals are 7*s.* 6*d.* for the back sets, and 8*s.* 6*d.* for the front sets (those facing the street), thus giving a gross rental of 166*l.* 8*s.* per annum. I should mention the rental is put too low, but they were finished building at a depressed season, and the gardens could not be formed because a part of the land required was not vacated, and to prevent any risk of their not letting, the rent we considered fair value, namely, 10*s.* each set, was not asked. Moreover, we could not be sure that our novel plan would command approval. The result was that at the rentals of 7*s.* 6*d.* and 8*s.* 6*d.* the sets let before the building was finished, and dealing even with this low rental the result is—

	Per week £ s. d.	Per year £ s. d.
Eight sets: four at 7*s.* 6*d.* . .	1 10 0	
four at 8*s.* 6*d.* . .	1 14 0	
	=	166 8 0
Deductions:		
Apportioned ground-rent	27 10 0	
Collection, $2\frac{1}{2}$ per cent.	4 3 0	
Rates and taxes . .	28 0 0	
Repairs, say yearly .	8 0 0	
		67 13 0
		£98 15 0

To return interest at the rate of 5 per cent. per annum, we require only 55*l.* 18*s.*, so we get more than $8\frac{1}{2}$ per cent., as *that* sum would require only 95*l.* 0*s.*7*d.*, leaving a surplus 3*l.* 14*s.* 5*d.*; and yet I am confident my client could now obtain the larger rental I have mentioned, though I cannot help admiring the motive

that prevents him. This motive is the dislike he has to raising the rent of his tenantry.

We may therefore conclude that houses built according to my plan will safely pay even tempting interest, if land can be obtained on building lease at a price of 10*s.* per foot frontage. In inferior spots no doubt land could be obtained at a much less price, but then the dwellings would have to be let at a less rental, so that the revenue would not be greatly affected. We may therefore assume in ordinary cases, as I have shown, a certain income of over 7*l.* 10*s.* per cent. may be obtained from building according to my registered plan. I say that rate to allow the return of capital, and for parts standing empty, and not taking into account the increased rentals that may be obtained.*

* It may be objected the rental these homes command is far above that which the poorer classes can pay; to which I answer, I am, it must be borne in mind, building so that I can get tempting interest, and therefore I am bound as to rentals by the 'demand' to provide the 'supply,' to use the commercial phrase. It is certainly, in a monetary point of view, wiser to work from the higher demand to the lower, than the reverse; because we are more certain to get the rental paid by the higher class of the working men than the lower, and there is also the less destruction of the houses to be placed on the credit side of the question. I would make an extract from a letter in the 'Society of Arts Journal' of April 21, 1871, signed R. H. which confirms my view. He says: 'There is one more practical point which I would urge in connection with building. If there be a real want for houses for a class well above poverty, which it cannot itself supply, but for which there is no reasonable doubt it could pay in the shape of remunerative rents, there are surely some strong reasons for entering upon such an undertaking rather than directly building for a pauperised class, who cannot pay at all. It is certainly somewhat hard entirely to reverse the old maxim, and to refuse "on principle" to help those who can do a great deal to help themselves, and beyond this lie two very practical considerations: 1. This better class certainly cannot occupy new houses without vacating old ones, so that all, down to the lowest, are likely indirectly to share in the

Next, let us consider my second plan, adapted to land having little depth, and to families requiring only one bedroom, or whose means are more limited and who might make the sitting-room useful at night by having a shut-up or press bedstead therein.

As the basis of all calculation must be the ground-rent that is paid, or the interest on the capital invested in the purchase of the freehold land, we must first deal with that. I ever advise the purchase of land well placed, and so will assume we give 1,000*l.* an acre for four acres. Our first operation (for I place against us all question of using the roads on the estate, and presume our land is good, but has not any frontages) must be to reduce our four acres available for building by roads 40 feet in width. This will be an excellent width for the roads, having regard to the small height of our houses, which are 23 feet from line of pavement to top of parapet. The limit, I may mention, as to height permitted by the Metropolitan Buildings Act, 1855, would allow, with this width of roadway, an increased height of 17 feet, but I consider it wiser not to increase the height, as my desire is *improvement.* Next take the land, minus the road, and give a depth of 10 feet to the houses for back yards, on which no erections need be put, and put a ground-rent of 4*s.* per

benefit. 2. Such a better class of tenants will not only be self-supporting, but, in all probability, their houses, when tenanted, will become saleable, so that a great and permanent advantage would be afforded by a use of funds for a short time. Not only is the money replaced for future usefulness, but there is a double, though partial, advantage speedily and safely accomplished, and it may well be, also, that in some cases good gained by such easy steps may, in the long run, go on faster and better than that accomplished *per saltum*.'

foot frontage, which will be considered extremely moderate for land of the value of 1,000*l.* an acre, and that will give 7*l.* 1*s.* ground-rent for each block building, or a ground-rent for each home of 1*l.* 15*s.* 3*d.* As on the four acres, after the deduction of roadways, we can build 95 such buildings, the ground-rent produced would be 669*l.* 15*s.* a year. Taking 4*l.* per cent. per annum on capital invested, viz., 4,000*l.*+ 2,000*l.* for making roads and sewers = 6,000*l.*, gives 240*l.* a year, and thus leaves a profit of 229*l.* 15s. This will show how great a margin there is in my figures, should they even be disputed.

We see, supposing we desired only 4*l.* per cent. interest on the ground-rent investment, we could let the land at a trifle over 2*s.* a foot frontage, or 3*l.* 10*s.* 6*d.* for each block building of four homes.

The cost of erection which a competent builder would contract for is 300*l.* the block, thus giving the cost at 38*l.* (nearly) per room, if the scullery and conveniences on each floor are not charged.

The result will show thus:—

	Per week			Per year		
	£	*s.*	*d.*	£	*s.*	*d.*
The two ground-floor sets, with private yard to each in rear . . each	0	4	3			
The two first-floor sets . . „	0	4	0			
	0	16	6 =	42	18	0
Ground-rent	7	1	0			
Rates and taxes	7	3	0			
Collection	1	1	6			
Empties and loss of rent . . .	2	3	0			
				17	8	6
Annual income . .				£25	9	6

Deduct further 1*l.* a set for repairs, and we get, after all deductions, 21*l.* 9*s.* 6*d.* for an outlay of 300*l.*, or an annual revenue from our four acres of 2,040*l.* 2*s.* 6*d.*, or more than 7*l.* per cent. per annum. If we only paid the lower ground-rent before mentioned we should get $8\frac{1}{3}$ per cent. on the capital after every deduction, and the rentals, I am confident, I have placed on the sets are below what they would command if land were judiciously purchased at 1,000*l.* an acre. It will be seen however, that we could give 3,685*l.* per acre, *without at all increasing* our ground-rents.

We have next to consider plans F. (Plate 8) and F.F. (Plate 7), which are similar to the preceding houses, except as to the additional accommodation afforded by the balcony arrangement. The slight difference between F. and F.F. we need not take into account in this chapter, it being merely the projecting window, the slight cost of which would be repaid by the slight increase of rent. The cost, then, of F. (Plate 8) per block would be 350*l.*, or nearly 44*l.* per room (not charging for balcony or scullery).

	Per week £	*s.*	*d.*	Per year £	*s.*	*d.*
The rental of ground-floor sets at 5*s.* 3*d.* ea.	0	10	6			
„ first-floor sets at 5*s.* each .	0	10	0			
	1	0	6	= 53	6	0
Ground-rent, at 4*s.* per foot frontage .	7	4	0			
Rates and Taxes	9	0	0			
Collecting	1	7	0			
Repairs	4	0	0			
Empties and loss of rent . .	2	14	0			
				24	5	0
				£29	1	0

Thus we have a net yearly income of nearly 8*l.* 10*s.* per cent. on capital.

While so many derive large incomes, compared to capital outlaid, from existing houses, it is surely reasonable to suppose that I, who only improve thereon, should derive, at least, as large a rate of interest, and all my figures may be taken as the lowest income that could be derived where due caution was exercised. That my statement is not my own as to the incomes from weekly property, I quote from that popular daily paper, the 'Echo,' of May 15, 1871: 'There is no more profitable employment of capital as regards the remunerative interest, than that of houses paying weekly rents. The interest realised on some investments of this character is not easily credited by those who are not familiar with the subject. If bad debts are made, or unsatisfactory tenants admitted, there is much less difficulty and loss connected with this class of property than where the rent is payable quarterly. An agent calling punctually every week, if the neighbourhood is a good one, and trade prosperous, brings in a large return, varying from ten to thirty per cent.'

I trust I shall not weary with my figures, but I cannot avoid next considering the cost of the alterations to existing buildings. This serious question we will now deal with, and first we will take design 'A,' which comprises the smallest alteration I consider advisable to be permitted by Government, where more than one family reside in a house.

It will, of course, be the safest method to deal with

the figures which represent the actual amount my client had to pay, and not give estimates where I can give contracts. Still, to show that the lowest tender is taken at a price that will remunerate the builder, I append the whole of the tenders that were received:—

Design 'A' (Plate 9).

	As per specification	As per Addendum K
	£	£
Fairhall and Weeks . . .	113	93
Waterson and Co. . . .	108	98
Bridgman and Nuthall . .	97	88

It will, therefore, be necessary in order to obtain a return at 5*l.* per cent. on this outlay that an increased rental of 4*l.* 8*s.* should be obtained. As there are four distinct sets of apartments given by my plan, this would necessitate an average increase on the rental of each floor of 1*l.* 2*s.*, or less than 6*d.* a week; surely no very difficult matter to obtain, taking into consideration the greatly increased comfort and convenience of the apartments arranged on my plan, as compared with those already existing. It is but fair to suppose that the sets of rooms would bear a much greater increase of rent than 6*d.*, but by acting liberally, and asking no more, it is certain that a landlord would ensure always having his property well tenanted by people who would know well that similar accommodation at so reasonable a rate was exceedingly hard to be met with elsewhere. Consultation with parties well acquainted with the poorer classes fully confirms my view that 1*s.* a week would readily be paid (and con-

sidered cheap) by them for improvements such as those indicated by my plans.

We now come to design 'B,' and proceed in the same way to give the tenders as they were received:—

Design 'B' (Plate 10).

	As per specification	As per Addendum K
	£	£
Fairhall and Weeks . . .	239	219
Waterson and Co. . . .	166	156
Bridgman and Nuthall . .	163	154

In this case, therefore, it would be necessary to obtain an increased rental of 7*l.* 14*s.* to pay 5*l.* per cent. on the outlay, and this would give to each floor an additional charge of 1*l.* 18*s.* 6*d.* or only 9*d.* a week, and this when the living-rooms remain the same size as at present, and the additional convenience of a scullery and separate W.C. is still given to each floor, while the use of a wash-house fitted with two coppers is common to all.

Come we now to designs 'C' and 'D,' for which the tenders were as follows:—

Design 'C' (Plate 11).

	As per specification	As per Addendum K
	£	£
Fairhall and Weeks . . .	357	337
Waterson and Co. . . .	289	275
Bridgman and Nuthall . .	230	221

Design 'D' (Plate 12).

	As per specification	As per Addendum K
	£	£
Fairhall and Weeks . . .	357	337
Waterson and Co. . . .	299	289
Bridgman and Nuthall . .	238	229

We find the difference so slight that it will suffice for our purpose to assume in each case that it would be necessary the property should bear an increased rental of 11*l.* 5*s.* to pay the required minimum interest of 5*l.* per cent.; which rental divided, as before, among the four separate flats, gives 2*l.* 16*s.* 3*d.* or an additional weekly rent in each case of *thirteen-pence*, in return for which we offer an *entirely additional bedroom* in addition to all the advantages (with the sole exception of the common wash-house) given in design 'B.'

Enough has surely been said to convince the most sceptical that I made myself the champion of no vain chimerical idea, when I asserted the practicability of adapting existing buildings to the purpose of letting them out in separate flats, each combining in itself all the usual conveniences of a dwelling-house of the poorer class, and yet obtaining for the outlay a return such as should satisfy the most exacting. For be it well remembered that though the above increases on present rentals are such as show an interest on outlay of 5*l.* per cent., they are in no case such as the apartments might reasonably be expected to command,

provided that the property dealt with be judiciously selected as to locality.

In proceeding now to consider the return on outlay promised by the alteration I have explained in Chapter VII., viz., that by which I propose the conversion of three houses into two, I am hardly in a position to place the matter before the reader on the same substantial basis as the last, having no surveyors' estimates or builders' contracts upon which to base my calculations. We may, however, arrive at an almost equally certain result if, instead of calculating the amount of increased rent required to produce a certain rate of interest on a given outlay, we show the undoubted improvements in present rentals which may be produced by carrying out alterations based on this scheme.

Take for example three four-roomed houses of two storeys in height, letting, as such houses may fairly be calculated to do in most parts of London, at 6*s.* a week, producing consequently a total weekly rental of 18*s.* We do away entirely with the centre house, not in any way interfering with the party walls, but simply removing the internal partitions and staircase, and utilising the space so obtained in providing convenient sculleries, W.C.s, staircases, and lobby-entrances to the sets of apartments obtained in the other two houses, the only structural alteration in which will be the removal of the staircase in each, and the utilisation of the space occupied thereby as an additional bedroom. The outlay therefore would

obviously not be a large one; but with the outlay, as I before said, I do not propose to deal. The fact remains that we have to offer in exchange for the three houses letting at 18*s.* a week, four sets of apartments, having the living-room and one bedroom the same size on the first floor as in the present houses, and larger on the ground floor, an *additional* bedroom, and every possible convenience in the way of W.C.s, sculleries, dust and coalboxes, &c. Now I do not think anyone can accuse me of exaggeration when I say that each of these sets of apartments should readily command 5*s.* per week, so that we get out of our two houses 20*s.* a week as against 18*s.* produced by the existing three houses. Now this gives 5*l.* 4*s.* improved rental—surely a considerable one on this amount of property.

I have said I would not deal with the question of outlay, but just for example's sake, assuming the cost of the alteration reached 50*l.*, which, upon careful consideration, I must consider a liberal estimate, the above rental would yield a return of over ten per cent. Can anything better be required to induce capitalists to convert these wretched, narrow-fronted, small-roomed tenements into healthy homes, with every sanitary requirement and appliance for domestic comfort? 'Let it be proved,' said the Earl of Carlisle, in one of his eloquent and powerful speeches, 'that the act of doing good, in however unpretending and common-place a manner, to large masses of the struggling and impoverished, would pay its own way, and ensure its

fair profit, and it would follow that benevolence, instead of being only an ethereal influence in the breasts of a few, fitful and confined in its operations, would become a settled, sober habit of the many; widening as it went, occasioning its own rebound, and adding all the calculations of prudence to all the impulses of generosity.'

CHAPTER IX.

SUGGESTIONS HOW THESE HOMES SHOULD BE FINISHED INTERNALLY—FIXTURES AND FITTINGS.

THIS chapter I intend to devote to the fixtures, and fittings, and finishings.

First, as to finishing our homes, I would say always plaster the walls and ceilings. I strongly object (though I do not think I do so more than the occupants, if I am correctly informed) to the method ot finishing adopted in the Peabody and other buildings. Take first the opinion in report issued by the Society of Arts, as to this, in 1864. 'There has been adopted in the Columbia Square and Rochester Buildings, an expedient which is decided cheap, but which I fear is not likely to become popular. The internal walls are not plastered, but merely pointed neatly, and tinted with a warm distemper colour.'

And again, speaking of lining the walls with glazed bricks or tiles: 'It has been proposed to line the internal walls with glazed bricks or tiles, but no method has yet been found for preparing and adapting them cheaply enough for the dwellings of the poor, and it is indeed questionable whether the plan, if practicable, would be acceptable.' Since then no

doubt experience has most fully confirmed the necessity for having a pleasing wall-surface—and this is certainly only to be obtained by paper of a cheap but effective pattern—and as I try to strengthen my statements as much as my space will permit, let me here quote Mr. Roberts, F.S.A., who says: 'The plastering to the walls of the living-rooms in cottages, has in some cases been omitted, but with very little saving of expense, as the brickwork requires additional care; and there is certainly a diminished appearance of comfort.'

We, then, plaster all our rooms except the scullery, and colour the walls of the bedrooms, or paper them. I prefer paper, and have used it in my buildings for the bedrooms. It can be obtained now very cheaply, and is cheerful, while the coloured walls are very objectionable, the colour rubbing off. The sitting-room I would always paper, and use a bright light paper, to make that room as cheerful as possible. So little is this considered that I am informed in some of the model buildings, the tenants are prohibited from knocking a nail in the walls for the purpose of hanging up a picture. The floors should be certainly wood except in the scullery, where I would have a cement floor, or part wood and part cement. Of other kinds of flooring, there are the ordinary brick floor, the hollow brick floors (recommended by Mr. Roberts), the lime and sand floors, the stone floor, the cement floor, or the asphalte floor, but they are all objectionable, and for the sitting-room and bedroom

nothing but wooden floors will do, whether we have a fireproof floor under, or the ordinary flooring joists. In confirmation, I might quote once again from the report issued by the Society of Arts as follows: 'This building' (speaking of model dwellings, New-Street Mews) 'was the first erected in the metropolis on Fox and Barrett's fireproof principle, with iron girders, and concrete and cement floors. In the bedrooms wooden floors have been since laid down, because the cement was cold to the feet.'

The skirting round the living-room and bedrooms may be yellow deal, but if any in scullery it should be cement.

No mouldings of any kind are used; all the doors to rooms and doors to cupboards I have square framed; no chamfers or mouldings, they add to the expense, are not necessary for comfort, and I find are not appreciated. The only exception I make is the front door, which I make moulded and bead butt and square inside.

No cornices in the rooms or passages. To room doors the fastenings I put are the usual 6-inch rim locks of the strongest make; to the waterclosets, back doors, and doors leading to balconies or yards, ordinary thumb latches, and 4-inch or 6-inch bolts. And for the lifting sashes I use sash fasteners and iron weights.

To meatsafe and coalbox, a turnbuckle and knob. The whole of the paintwork inside I have finished stone colour (four oils), so that it may be washed and kept clean.

The sinks I use are the galvanised iron ones.

The 'coppers' are galvanised iron pots.

The next items are very important, viz., the stoves and ranges. In each sitting-room I put a range having oven only: I do not put a range having a boiler; it is a perpetual source of annoyance and expense; at least, such is my experience; the tap leaks or the regulating ball does not act, and so the boiler bursts or cracks. Again, in winter, accidents are likely to occur from want of water, for sometimes, with all the care to prevent it, the pipes will get frozen. The cost of these ranges, I may mention, is 17*s.* 6*d.* for the size I use; I had them from Messrs. H. L. Taylor and Company, Queen Street, Cheapside, and they answer very well; but where a range cannot be afforded, there is a grate which, while it is the cheapest made, is decidedly superior to all others for the living-rooms where cooking is required to be done, and also a fire kept up at a small expense. I allude to the 'Pantheon stove;' its shape, circular at the bottom, enables a fire to be kept in at a trifling expense, and I have often had taken out, to oblige this class of tenant, elliptic and register stoves of all kinds, to replace them with this good old-fashioned and inexpensive stove; and I may here mention that I found in conversation with Mr. William Freeman, the curator of the Economic Museum, that his experiments and experience led him conclusively to the same result. The last items I need mention are the bells to front door. I have a separate 'pull' for each 'house,' in the doorpost, and have designed a

bronze plate with a hinged piece in its thickness, so that the agent, by undoing a small brass padlock, can insert beneath the bell-pull, a small tablet with the name of the tenant either written with ordinary ink, or painted thereon. The bells I place on the landing, just above the door of the set to which they belong.

I put a knocker on the door, I may say, not for use so much as that the door may not look different from those of the houses adjoining.

One thing must be borne in mind: all fixtures and fittings should be simple in construction, strong, and durable.

CHAPTER X.

COURTS AND ALLEYS, AND HOW TO IMPROVE THEM.

I FEEL I must devote only a short chapter to the very important question of the improvement of the courts and alleys of London and all large towns. I say short because I feel I am scarcely keeping faith with the intention expressed in my preface to make this work small, though, of necessity, properly to consider this subject, I must have added many plans and sections and much written description, and thus I should have lost the opportunity of enabling my publishers to issue the book at such a price as to place it within the reach of the general public. For I feel it is of the highest consequence to have the attention arrested of the middle classes, as they are large holders of the property this work is intended to improve, and if I can show to them that the improvement 'can be made to pay,' to use the expressive commercial phrase; I shall indeed have done 'the State some service.'

First let me mention, I am, in dealing with courts and alleys, adverse to any one system. Each court or alley must be treated by itself: all adaptation must have direct reference to the SPOT and the CLASS OF TENANT; and therefore, the first step is to carefully inspect the

court or alley and the houses adjacent. The owner of such property, though he may even have collected his rentals therefrom for years, might not have the slightest idea how it could be improved, while the professional man accustomed to deal with such matters, would in a short time indicate how vast improvements might be made at little cost. But there must be an absolute abandonment of all theories and dicta. For instance, while I am writing I read, in the 'Journal of the Society of Arts,' May 5, 1871, a letter from a gentleman who I believe has much studied the subject: I allude to Mr. Robert Rawlinson. He says:—

'With respect to workmen's dwellings, there should be independence. Internal cube-space, no room less than nine feet in height. *There must be three bedrooms, separately lighted, with means of thorough ventilation*, and also fixed means for ventilation at the junction of side wall and ceiling, by a long slit-like opening, and not in a square or block-shaped opening of any kind.'

In other respects his letter is excellent; for instance, what could be better than the following?—

'But the more any working man makes his own house his home, the better for himself, for his family, and for the whole community. "No place like home" cannot be too fully appreciated. Home must, however, afford shelter, isolation, comfort, and health, to be home—having no other place like it. A people without homes is a people unstable, disloyal, and dangerous; a people with homes will be healthy, peaceable, and

loyal. No nation nor State can attain to safety until the masses of the people have homes suitable for men, women, and children to live in who are to be taught the pure doctrines of Christianity.'

And it is because gentlemen so devoted to the subject and so sincerely anxious to help to benefit the poor, and who have consequently become somewhat of 'authorities,' are ever stating certain almost unattainable bases of action, that I am desirous of pointing out to them, that it is, in some measure, by their over-earnestness and their desire to have nothing but that which they consider perfect, that the mass of those who would do something are estopped from progress. For instance, the proprietor, having read this letter, goes to his property with rule or tape in hand to measure the height: the result no doubt is that the rooms are not 9 feet high (I estimate that certainly three-fourths of the rooms occupied by working men are less). He ponders over this. Nothing can be done but pull down and rebuild, and yet his house may have thorough ventilation and large open space behind. He may consult his architect, who will point out that the Metropolitan Buildings Act, not a very antique statute (passed only in 1855), gives 7 feet as the minimum height, except top storeys, in which it only requires an average height of 3 feet 6 inches for any house; and he may go on to point out that surely 7 feet will suffice, that if he pulls down and rebuilds each storey 9 feet high the expense will be so heavy that he cannot estimate it will repay, and that he

cannot recommend him to do that, but be content with something less ambitious and more practical. But his client goes away and says, 'Well, if I can't do it properly I had better leave it alone;' and so this seems to be the effect on the general public by the labours of the various societies. They have not induced the public to go heartily with them, but have *frightened* them. As Professor Kerr says, in speaking of what they have done in 25 years—

'Take all the model lodging-houses throughout London erected within the last 25 years, and they are only a mere drop in the bucket compared with the ordinary progress of population; and what room, therefore, can they have made for anything?' Yes, rest assured, reader, two things are urgent now; as, whether or not the past 25 years have advanced us as much as they might have done had the societies been less ambitious in striving only how to do *perfect work*, it is only desirable to discuss the matter now with the view of deciding *what shall now be done*; and those two things are, first to adapt all the good houses now occupied in parts by different families into flats (and I have shown how this can be done profitably); the second, the adaptation of houses in courts and alleys to make them more fit for occupation, while limiting the outlay so as to enable them still to be let at about the same rents as they now let for; and we can safely approach this with the pleasing certainty that we are doing much more good by improving than by demolishing, which so many advocate, as demolition simply means the

overcrowding of adjacent property or ruining the ejected families. The houses in many courts and alleys are built back to back, and it is therefore impossible to get direct ventilation from back to front; but I have dealt very successfully with this class of property, and the officers of health have approved the alterations. Over the door of each room that leads on to staircase I have inserted a frame filled with perforated zinc; above the staircase I have placed in the roof as large a skylight as the space would admit, raising it well above the roof, and round the sides and bottom putting louver boarding, so that at all times I get ventilation; and where it is desirable I put perforated zinc in fanlight of entrance doorway, so that night and day there is an imperceptible current of air, and yet so out of sight and so devoid of draught is it that the tenants do not stop up the openings, as I have so frequently seen done with other modes.

Another improvement is the building or converting a shed, if space is too limited; fixing therein three or four coppers; placing this new wash-house under the care of the agent for the letting of the houses, if she or he resides on the property; allotting each copper to so many tenants, and naming a day for its use by each. This they have told me they considered a great boon. 'Best thing you have done for us, sir,' they have said. I treat the roof of this wash-house the same as roof over staircase, with skylight and louver boarding. Again, where the court is very narrow I have removed one house; this gives more air-space in the

court or alley and enables one to get cross-ventilation and space for extra dust receptacles and waterclosets, which are in most cases absolutely required. Where it is possible I always provide a watercloset for each tenant, giving him a key thereto so that he may always keep it locked, considering it economy in the end to do this, as it prevents the continual expense of unstopping the drains. Another advantage is that it reduces the number of tenants who use the court or alley as a playground for their children, giving the remainder more space and air, a matter of great consequence.

Again, where the two upper storeys are *very low* in height, one forming the attic or garret, I would recommend a rather violent remedy, namely, doing away with intermediate floor and making it into one storey.

Again, in some instances I have only had to make a communication between the front and back rooms to increase ventilation. Of course, in all cases where the top sashes do not open they must be made to do so.

Another improvement I may mention. Where there are steps up to the ground-floor storey from pavement, and a deficiency of height in this storey, lower the floor so as only to leave the doorstep raised above pavement, excavating the ground and putting sound joists, sleepers, and sleeper-wall, with ventilation thereunto; but where the ground floor is raised above pavement, it is usual to find a basement under. If this is occupied it is generally wise to get rid of the tenants

and utilise the basement for other purposes, as, for instance, for general or separate wash-houses, or children's playground. I would mention that I have been concerned in the case of another court condemned by a local Board of Works (I purposely omit mentioning which Board), where, acting under my advice, my client appealed from the decision. Though I submitted a plan for the alterations, which comprised utilising a piece of ground they did not know of, by removing a wall and shed and so giving every house a separate watercloset with key, and a general wash-house fitted with coppers, the Board decided no alteration should be made, but the houses be demolished. At the hearing of the appeal, however, the Bench agreed to my plan, and retained it as a record for the Court as to the alterations that should be carried out, and I presume I may fairly claim the victory, as the Vestry had to pay their own costs.

I mention this case because the Vestry and local Board may have been actuated by ideas and dicta which seem to pass current as if they were not to be questioned. Dr. Guy in the witness-box, giving his evidence, stated it was absolutely necessary in all rooms, to render them fit for habitation, to have direct through ventilation in a horizontal direction, and yet, as a fact, there is scarcely a house in town (or country either) that complies with this requirement. I contended, if air came in either at the double hung sash windows or by ventilators, and I removed the vitiated air by a skylight, as I have previously described, with louver boarding,

or by carrying up a dormer from roof, and placing therein a large sash hung on centres to open, this was amply sufficient. I should mention the ground-floor and first-floor rooms communicated directly one with the other by an open staircase, so they were virtually one room divided in part vertically ; the ground-floor room having the window I have mentioned and the street door, the first-floor room a similar window. As the learned doctor might not have understood plans and sections, I caused two of the houses to be altered as I proposed, but with no result on his opinions, which were, let me repeat, that no room was fit for the poor without direct through horizontal ventilation ; that the confinement to which the prisoners at Millbank were subjected, did not make it necessary to provide more cube space for them than the poor required, and that that quantity must be, for each adult, 800 cubic feet. Thus a room 14 feet by 12 feet and 8 feet high, a room of no mean size, would only accommodate one person, as it only gives 1,344 cubic feet, while according to this authority 1,600 cubic feet should be given. Surely it would be wiser to adopt a more moderate view of these requirements, so that we may begin practically to benefit the dwellings of all large towns instead of following the present theoretical plan, which, setting up so exalted a scale, seems absolutely to prevent anything being done.

It may be objected, 'But you get rid of some tenants.' I answer, 'Yes; but to how small an extent compared with the number I should deal with!' I believe in the

entire alterations I should not dislodge nearly so many as a new Metropolitan Railway, which would be sure to be sanctioned by the Houses of Parliament, if only a company could be found who considered it would pay. I strongly urge the reader to consider carefully what I have advanced, as here may be found great scope for philanthropy, for all other classes of buildings may be left to the commercial world, as they will pay fair interest if properly purchased, built, and managed; but there are some courts where the alterations I should like to carry out would not give a large enough interest to tempt those classes, and here seems to me the opportunity for aid to be judiciously given, either by lending a portion of the capital at $2\frac{1}{2}$ per cent. or even without interest; one condition of its being so lent being that it be returned by fixed annual instalments extending over twenty-five or thirty years, if the property dealt with is freehold. This would enable those who undertook the improvement to obtain fair interest on the portion of capital they would find.

CHAPTER XI.

ADVANTAGES THAT WOULD ACCRUE FROM THE LEGISLATURE DEALING WITH THE SUBJECT—SKETCH OF THE ACT OF PARLIAMENT REQUIRED, GIVING THE LEADING PROVISIONS NECESSARY—NOVEL BASIS OF CALCULATION PROPOSED FOR VALUATION OF INTERESTS, TO OBVIATE LEGAL ACTIONS.

LET me now consider the question of the improvement of the dwellings in towns in its more general aspect. In the preceding chapters we have considered the building of new homes, and the adaptation of existing houses so that they may be made into homes for the classes who now occupy them by the addition of those conveniences which are admittedly necessary, and those alone, so as by the smallness of the outlay to enable the altered buildings to be let at a low rental; and if the reader has followed me through the preceding chapters I believe he will think with me that my propositions, though they are somewhat novel, contain the elements of dealing practically and successfully with the greatest want of the day—I venture to use even so forcible an expression—at such an expense as shall induce capitalists and speculators to embark in these undertakings. I now crave his attention to the various points I consider should have the attention of Parliament and the country. First then let us consider who are the holders (lease or in fee) of these houses.

In my own experience of this class of properties, which during the last eighteen years has been very extensive, I find the great majority of such houses are held on lease by the classes who are industrious tradesmen and who have invested their savings therein, or by their widows and children, or by spinster ladies who derive their sole income from such property. In nearly all cases the holders of such houses are those, I may safely say, to whom present income is the all-important point, and who are averse therefore to incur outlay for improvements, because such a course would deprive them for some time of that which they cannot well do without. Now some of the public daily journals a short time since were very violent about the matter, and contended that all property should be confiscated and pulled down that did not come up to the sanitary standard of the present day; and thus, should their false views have prevailed, I know not how many thousands would have been quite ruined who certainly could hardly have anticipated when they or their parents purchased property (twenty years since, even), that an alteration in the opinions of medical men as to what was required would deprive them of their income.

We have then to consider the question in all its bearings, and in dealing with so vast a problem I would desire my observations only to be regarded as hints to be considered and improved upon. First—for after all that can be said for the 'invested rights' of freeholders and lessees they are not to be primarily considered—are the classes who cannot rent entire houses,

either from their requirements of space being limited, or their incomes. And here I would propose that a further amendment of the Metropolis Local Management Act be made, and amongst the clauses of such Act I would have :—

1. That before any lessee or occupier shall let out any part of his house separately, notice should have to be given to the authorities of such intention. And I cannot see that any hardship would be felt. It is simply extending the lodging-house system already at work, and I believe it is found to work well.

2. That the officer, having inspected and found all the requirements of the new Act complied with, would give a notice in writing that certain parts of the house (specifying them) might be let.

3. That no part shall be let off unless such part shall contain, or have attached, or within a convenient distance (or such distance and position might be described, giving the extreme limit), the following, for the sole use of such part intended to be let, namely, a water-closet, water supply, sink, having pipe to convey water therefrom into drains, meatsafe, coalbox or a place for coals, and that none of these shall be either in the living or bedroom.

4. As the present powers under the Act for removal of nuisances are, I conceive, quite sufficient for the purpose, I do not think any alteration or amendment necessary; but, to prevent any uncertainty, and to ensure the new Act working effectually, it would be as well to give rather more power of inspection.

5. I should like the power of punishing by fine any tenant who damaged any of the fittings and fixtures. No doubt this power exists to some extent, but I consider it would be wise to confirm and vary it, so as to bring this fully before the public.

6. As I propose compulsory powers, it would be necessary to give very extended time before such compulsory powers could be enforced in existing property, though of course it could apply at once to all *new* erections, so as not to confiscate property, which, I am sure, would not be permitted; but if this delay be objected to, I consider the clause should be framed in one of two ways, either delaying the enforcement of the Act for a certain number of years, which I do not at all like, or else giving the leaseholder the power, should the Local Board of Works or other authorities of the place in which the houses are situate require him to make the outlay necessary to comply with this intended Act, to require the freeholder to take the property off his hands; and hereafter I propose showing how this might be arranged as a simple calculation and survey, and how it could be done so as to do away entirely with the expensive compensation actions to which we have, with Railways and Boards of Works, so long been accustomed; and which surely are a disgrace to a nation considered so practical and businesslike by the world.

Now to explain how I propose to work the system set forth in preceding paragraph. I propose then that the POOR-RATING shall guide all compensations, and

that to prevent alteration in the basis I would have the value calculated at the poor-rating of all property as such rating stands at the date of the first reading of this intended Act, so preventing any increase of the rating on the one side or any reduction thereof by the authorities; and as the time for the vending to the authorities is limited, no hardship would be felt in this on either side. I would then insert a clause of so many years' purchase, taking the Government annuity tables for fixed periods as the basis, and from such amount deduct the sum of money that would be required to put the premises in repair in accordance with the covenants in the lease under which the property is held, or if in fee then to put them in good and tenantable repair. Here then is the only dispute that can occur, and to meet this I would insert the further clause requiring each to appoint a surveyor, and for the surveyors to appoint an umpire in the usual way; limiting the fees to be paid to the umpire to a fixed sum per room (large or small), and giving the umpire power in his discretion to say which of the parties shall pay the other's surveyor, or in what proportion, but in no case having power to award to any surveyor for his fees more than the fees he would himself be entitled to. Of course these clauses would be very stringent.

I think then I have shown a way of summarily dealing with those who receive the rack rent, and yet with perfect fairness; besides, they need not sell to the authorities unless they like, but may either keep the houses and carry out the works, or sell their property

in the open market. The next point would be the intermediate interests, which, though now much simpler than the former, I would try to make more certain and simple still, by having a table in the Act fixing the payment to them, according to the length of their existing interest, or the time when their reversionary interest accrued and its duration. The next difficulty would be the copyholders: I desire to meet every difficulty, and think I have mentioned now all the different classes of interests, and this I would meet by a clause requiring the calculation of what sum it would require to enfranchise and so make the houses freehold, and then proceed as for freehold property, deducting of course from the result the sum required for the enfranchisement.

You will see that by a fixed basis of calculation, namely, the poor rating, I avoid the present elaborate compensation actions in which we surveyors are so much engaged, and substitute a mode of proceeding preventing all actions, and the only reference is of the simplest kind, no voluminous evidence to be taken, but the two surveyors (one representing the vendor and one the parish or other authority) meet on the premises, go over them, and if they cannot agree, then the umpire (to be previously appointed) goes and views and decides. His decision is final, and this award is deducted from the amount to be paid to the vendor.

Let it be clearly understood I only offer these remarks as suggestions for consideration, but I think they contain the germ which could easily be elaborated into

such an Act as would at once remedy the acknowledged existing evils and yet give fair but moderate remuneration to invested rights.

One last difficulty let me deal with. It is, What are the authorities to do? for many will say 'they cannot manage house property profitably.' Well, where the authorities are averse to retain and manage the property, though I consider they could do so and thus yield to the ratepayers a percentage that would materially reduce the amount the tax-collector would 'call for,' I propose either that they shall expend the necessary sum to do the works required by the Act (by contracts obtained through public notices), and then when done sell the property by tender or sublease for a term of years, thus keeping a reversion for the future, as the improvement in land and property has really for centuries been increasing in value in England, notwithstanding now and then sudden depressions therein and panics, or the authorities might either let or sell at once, appending to the conditions of sale or lease a schedule of the works they required done.

One more word of advice on this part of my subject. Do not make any rules or regulations to guide or restrict the tenantry; let them do as they please, but let them know that if they misconduct themselves or destroy or injure the fixtures, fittings, or other things, or render themselves obnoxious to the majority of the other tenants they will have notice to quit and be required to leave. This is the only method ordinary landlords employ, and I believe it is all that is necessary

unless you have such masses of people congregated together as there are in the large so-called model lodging-houses. I know in those Model Homes I have erected, I have not heard one instance of injuring or destruction nor had one watercloset stopped even, but the tenants seem to thoroughly appreciate both the comforts provided for them, the confidence reposed in them, and their independence in the absence of all rules and regulations.

CHAPTER XII.

ADVICE TO INVESTORS INTENDING TO BUILD OR ADAPT—CONCLUDING REMARKS.

A FEW concluding remarks will be considered necessary, and I write them with reluctance, hesitating to launch my book into the troubled waters of public opinion, feeling that however much deep study and thought I may have devoted to this subject, I may not have expressed the matter in such language as first to engage the earnest attention of my reader, and having done that *to make him so thoroughly* comprehend the designs, plans and details, including outlays and costs, that he may, should I carry him thus far, be thoroughly master of what is really required, and of my projects to meet such wants. Deeply convinced as I am that this subject is of the highest and first importance, and admitted so to be (as I have by a few quotations shown) by all the leading men of the day, I have endeavoured herein to give at all events a safe, practical, and economical mode of meeting this acknowledged requirement, and one, also, by which the investors, while feeling they are helping forward a truly English work, will find that they are also realising a fair interest for their capital. But I would remind intending investors of a few pitfalls, for as any failure of realising a dividend

might probably condemn my plans, I am most naturally anxious to prevent such a catastrophe.

First, employ a professional man, one well versed in the locality in which it is intended to purchase the land or houses, or to rent them (this is more especially necessary in dealing with London property), one who has had to deal with land and houses, so that you may not pay too dearly for them, because it must be quite clear to my readers that building these homes or adapting existing houses to the purpose must ever be subject to the law which governs all investments, namely, that if we buy at a low price our dividend must be increased thereby.

Secondly, do not attempt to purchase or rent premises yourself without such advice, and do not let the vendor know the object for which you require them. Remember what Mr. H. Roberts says in his essay 'On the Improvement of the Dwellings of the Working Classes' on this point:—

'The fact of property being enquired after by philanthropic persons, gives to it a fictitious value, and in numerous instances the object has thus been defeated, or the price paid for the property has been so high, that with the outlay for repairs, its net return is such as to discourage any further attempts of the same kind.'

But let your professional man go into the open market as any other buyer, and buy at the Auction Mart or elsewhere. If it be land, then only buy such land as would command tenants at profitable rents if the ordinary speculative builder ran up his *one-plan* houses. If houses for conversion, then only such as are producing

a fair return on what is proposed to be given for them ; or if not producing rent, being shut up by authority under the new Act of Parliament, or too dilapidated to let, then he must carefully go into the question ; and here his decision and calculations are most important, and naturally lie at the root of success. All I advance and consider I have proved is, first, that on the same *land* I can build my Homes to yield a larger profit than the speculative builders' houses do ; secondly, that I can adapt existing buildings, and the outlay shall make a better return than is produced by them at present.

Thirdly, when you have purchased or rented the land or houses, have plans carefully prepared by an architect, as in many cases the plans will require varying to adapt them to the peculiarities of the land or the houses, so as to take the best advantage of them.

Fourthly, have the work done according to the architect's specification by contract. Let the architect invite tenders from three or four *well-known builders* ; by this means you will know the cost, and you will get your buildings *done well*—a most important consideration both for the health and comfort of the tenants and to secure the proper return on capital invested.

I now commend my work to the public, and shall feel much obliged for any suggestions that may be offered, to which I will refer if I again employ my pen on this subject.

Spottiswoode & Co., Printers, New-street Square, London.

39 Paternoster Row, E.C.
London: *March* 1872.

GENERAL LIST OF WORKS

PUBLISHED BY

Messrs. LONGMANS, GREEN, READER, and DYER.

Arts, Manufactures, &c..... 12
Astronomy, Meteorology, Popular Geography, &c. 7
Biographical Works 3
Chemistry, Medicine, Surgery, and the Allied Sciences 10
Criticism, Philosophy, Polity, &c.... 4
Fine Arts and Illustrated Editions 11
History, Politics, and Historical Memoirs 1
Index .....21—24
Knowledge for the Young 20
Miscellaneous Works and Popular Metaphysics 6
Natural History & Popular Science 8
Periodical Publications..... 19
Poetry and The Drama..... 17
Religious and Moral Works 13
Rural Sports, &c..... 18
Travels, Voyages, &c. 15
Works of Fiction 16
Works of Utility and General Information 19

History, Politics, Historical Memoirs, &c.

The History of England from the Fall of Wolsey to the Defeat of the Spanish Armada. By James Anthony Froude, M.A.

Cabinet Edition, 12 vols. cr. 8vo. £3 12*s.*
Library Edition, 12 vols. 8vo. £8 18*s.*

The History of England from the Accession of James II. By Lord Macaulay.

Student's Edition, 2 vols. crown 8vo. 12*s.*
People's Edition, 4 vols. crown 8vo. 16*s.*
Cabinet Edition, 8 vols. post 8vo. 48*s.*
Library Edition, 5 vols. 8vo. £4.

Lord Macaulay's Works. Complete and uniform Library Edition. Edited by his Sister, Lady Trevelyan. 8 vols. 8vo. with Portrait, price £5. 5*s.* cloth, or £8. 8*s.* bound in tree-calf by Rivière.

Varieties of Vice-Regal Life. By Major-General Sir William Denison, K.C.B. late Governor-General of the Australian Colonies, and Governor of Madras. With Two Maps. 2 vols. 8vo. 28*s.*

On Parliamentary Government in England: its Origin, Development, and Practical Operation. By Alpheus Todd, Librarian of the Legislative Assembly of Canada. 2 vols. 8vo. price £1. 17*s.*

The Constitutional History of England since the Accession of George III. 1760—1860. By Sir Thomas Erskine May, K.C.B. Cabinet Edition (the Third), thoroughly revised. 3 vols. crown 8vo. price 18*s.*

A Historical Account of the Neutrality of Great Britain during the American Civil War. By Mountague Bernard, M.A. Royal 8vo. price 16*s.*

The History of England, from the Earliest Times to the Year 1865. By C. D. Yonge, Regius Professor of Modern History in Queen's College, Belfast. New Edition. Crown 8vo. 7*s.* 6*d.*

Lectures on the History of England, from the Earliest Times to the Death of King Edward II. By William Longman. With Maps and Illustrations. 8vo. 15*s.*

The History of the Life and Times of Edward the Third. By William Longman. With 9 Maps, 8 Plates, and 16 Woodcuts. 2 vols. 8vo. 28*s.*

History of Civilization in England and France, Spain and Scotland. By Henry Thomas Buckle. New Edition of the entire work, with a complete Index. 3 vols. crown 8vo. 24*s.*

Realities of Irish Life. By W. STEUART TRENCH, Land Agent in Ireland to the Marquess of Lansdowne, the Marquess of Bath, and Lord Digby. Fifth Edition. Crown 8vo. 6*s*.

The Student's Manual of the History of Ireland. By M. F. CUSACK, Authoress of 'The Illustrated History of Ireland.' Crown 8vo. price 6*s*.

A Student's Manual of the History of India, from the Earliest Period to the Present. By Colonel MEADOWS TAYLOR, M.R.A.S. M.R.I.A. Crown 8vo. with Maps, 7*s*. 6*d*.

The History of India, from the Earliest Period to the close of Lord Dalhousie's Administration. By JOHN CLARK MARSHMAN. 3 vols. crown 8vo. 22*s*. 6*d*.

Indian Polity: a View of the System of Administration in India. By Lieut.-Col. GEORGE CHESNEY. Second Edition, revised, with Map. 8vo. 21*s*.

Recreations of an Indian Official. By Lieutenant-Colonel MALLESON, Bengal Staff Corps; Guardian to His Highness the Maharaja of Mysore. Crown 8vo. 12*s*. 6*d*.

An Historical View of Literature and Art in Great Britain from the Accession of the House of Hanover to the Reign of Queen Victoria. By J. MURRAY GRAHAM, M.A. 8vo. price 14*s*.

Waterloo Lectures: a Study of the Campaign of 1815. By Colonel CHARLES C. CHESNEY, R.E. late Professor of Military Art and History in the Staff College. Second Edition. 8vo. with Map, 10*s*. 6*d*.

The Overthrow of the Germanic Confederation by Prussia in 1866. By Sir A. MALET, Bart. K.B.C. late H.B.M. Envoy and Minister at Frankfort. With 5 Maps. 8vo. 18*s*.

Chapters from French History; St. Louis, Joan of Arc, Henri IV. with Sketches of the Intermediate Periods. By J. H. GURNEY, M.A. New Edition. Fcp. 8vo. 6*s*. 6*d*.

History of the Reformation in Europe in the Time of Calvin. By J. H. MERLE D'AUBIGNÉ, D.D. VOLS. I. and II. 8vo. 28*s*. VOL. III. 12*s*. VOL. IV. price 16*s*. and VOL. V. price 16*s*.

Royal and Republican France. A Series of Essays reprinted from the 'Edinburgh,' 'Quarterly,' and 'British and Foreign' Reviews. By HENRY REEVE, C.B. D.C.L. 2 vols. 8vo. price 21*s*.

Home Politics: being a Consideration of the Causes of the Growth of Trade in relation to Labour, Pauperism, and Emigration. By DANIEL GRANT. 8vo. 7*s*.

The Oxford Reformers—John Colet, Erasmus, and Thomas More; being a History of their Fellow-Work. By FREDERIC SEEBOHM. Second Edition. 8vo. 14*s*.

The History of Greece. By C. THIRLWALL, D.D. Lord Bishop of St. David's. 8 vols. fcp. 28*s*.

The Tale of the Great Persian War, from the Histories of Herodotus. By GEORGE W. COX, M.A. late Scholar of Trin. Coll. Oxon. Fcp. 3*s*. 6*d*.

Greek History from Themistocles to Alexander, in a Series of Lives from Plutarch. Revised and arranged by A. H. CLOUGH. Fcp. with 44 Woodcuts, 6*s*.

Critical History of the Language and Literature of Ancient Greece. By WILLIAM MURE, of Caldwell. 5 vols. 8vo. £3 9*s*.

History of the Literature of Ancient Greece. By Professor K. O. MÜLLER. Translated by LEWIS and DONALDSON. 3 vols. 8vo. 21*s*.

The History of Rome. By WILHELM IHNE. English Edition, translated and revised by the Author. VOLS. I. and II. 8vo. 30*s*.

History of the City of Rome from its Foundation to the Sixteenth Century of the Christian Era. By THOMAS H. DYER, LL.D. 8vo. with 2 Maps, 15*s*.

History of the Romans under the Empire. By Very Rev. CHARLES MERIVALE, D.C.L. Dean of Ely. 8 vols. post 8vo. price 48*s*.

The Fall of the Roman Republic; a Short History of the Last Century of the Commonwealth. By the same Author. 12mo. 7*s*. 6*d*.

Historical and Chronological Encyclopædia; comprising Chronological Notices of all the Great Events of Universal History, including Treaties, Alliances, Wars, Battles, &c.; Incidents in the Lives of Eminent Men, Scientific and Geographical Discoveries, Mechanical Inventions, and Social, Domestic, and Economical Improvements. By the late B. B. WOODWARD, B.A. and W. L. R. CATES. 1 vol. 8vo.

[*In the press.*

Three Centuries of Modern History. By CHARLES DUKE YONGE, Regius Professor of Modern History and English Literature in Queen's College, Belfast. Crown 8vo. 7*s*. 6*d*.

History of European Morals from Augustus to Charlemagne. By W. E. H. LECKY, M.A. 2 vols. 8vo. price 28*s.*

History of the Rise and Influence of the Spirit of Rationalism in Europe. By the same Author. Cabinet Edition (the Fourth). 2 vols. crown 8vo. price 16*s.*

Essays on Historical Truth. By ANDREW BISSET. 8vo. 14*s.*

God in History; or, the Progress of Man's Faith in the Moral Order of the World. By the late Baron BUNSEN. Translated from the German by SUSANNA WINKWORTH; with a Preface by Dean STANLEY 3 vols. 8vo. 42*s.*

Socrates and the Socratic Schools. Translated from the German of Dr. E. ZELLER, with the Author's approval, by the Rev. OSWALD J. REICHEL, B.C.L. and M.A. Crown 8vo. 8*s.* 6*d.*

The Stoics, Epicureans, and Sceptics. Translated from the German of Dr. E. ZELLER, with the Author's approval, by OSWALD J. REICHEL, B.C.L. and M.A. Crown 8vo. 14*s.*

Saint-Simon and Saint-Simonism; a Chapter in the History of Socialism in France. By ARTHUR J. BOOTH, M.A. Crown 8vo. price 7*s.* 6*d.*

The History of Philosophy, from Thales to Comte. By GEORGE HENRY LEWES. Fourth Edition, corrected, and partly rewritten. 2 vols. 8vo. 32*s.*

The Mythology of the Aryan Nations. By GEORGE W. COX, M.A. late Scholar of Trinity College, Oxford. 2 vols. 8vo. price 28*s.*

The English Reformation. By F. C. MASSINGBERD, M.A. Chancellor of Lincoln. 4th Edition, revised. Fcp. 7*s.* 6*d.*

Maunder's Historical Treasury; comprising a General Introductory Outline of Universal History, and a Series of Separate Histories. Fcp. 6*s.*

Critical and Historical Essays contributed to the *Edinburgh Review* by the Right Hon. Lord MACAULAY:—

STUDENT'S EDITION, crown 8vo. 6*s.*
PEOPLE'S EDITION, 2 vols. crown 8vo. 8*s.*
CABINET EDITION, 4 vols. 24*s.*
LIBRARY EDITION, 3 vols. 8vo. 36*s.*

History of the Early Church, from the First Preaching of the Gospel to the Council of Nicæa, A.D. 325. By the Author of 'Amy Herbert.' New Edition. Fcp. 4*s.* 6*d.*

Sketch of the History of the Church of England to the Revolution of 1688. By the Right Rev. T. V. SHORT, D.D. Lord Bishop of St. Asaph. Eighth Edition. Crown 8vo. 7*s.* 6*d.*

History of the Christian Church, from the Ascension of Christ to the Conversion of Constantine. By E. BURTON, D.D. late Regius Prof. of Divinity in the University of Oxford. Fcp. 3*s.* 6*d.*

Biographical Works.

Autobiography of John Milton; or, Milton's Life in his own Words. By the Rev. JAMES J. G. GRAHAM, M.A. Crown 8vo. with Vignette-Portrait, price 5*s.*

Recollections of Past Life. By Sir HENRY HOLLAND, Bart. M.D. F.R.S., &c. Physician-in-Ordinary to the Queen. Second Edition. Post 8vo. 10*s.* 6*d.*

A Memoir of Daniel Maclise, R.A. By W. JUSTIN O'DRISCOLL, M.R.I.A. Barrister-at-Law. With Portrait and Woodcuts. Post 8vo. price 7*s.* 6*d.*

Memoirs of the Marquis of Pombal; with Extracts from his Writings and from Despatches in the State Papers Office. By the CONDE DA CARNOTA. New Edition. 8vo. price 7*s.*

Reminiscences of Fifty Years. By MARK BOYD. Post 8vo. price 10*s.* 6*d.*

The Life of Isambard Kingdom Brunel, Civil Engineer. By ISAMBARD BRUNEL, B.C.L. of Lincoln's Inn, Chancellor of the Diocese of Ely. With Portrait, Plates, and Woodcuts. 8vo. 21*s.*

Lord George Bentinck; a Political Biography. By the Right Hon. B. DISRAELI, M.P. Eighth Edition, revised, with a new Preface. Crown 8vo. 6*s.*

The Life and Letters of the Rev. Sydney Smith. Edited by his Daughter, Lady HOLLAND, and Mrs. AUSTIN. New Edition, complete in One Volume. Crown 8vo. price 6*s.*

Some Memorials of R. D. Hamp- den, Bishop of Hereford. Edited by his Daughter, HENRIETTA HAMPDEN. 8vo. with Portrait, price 12*s.*

The Life and Travels of George Whitefield, M.A. By JAMES PATERSON GLEDSTONE. 8vo. price 14*s.*

Memoir of Pope Sixtus the Fifth. By Baron HÜBNER. Translated from the Original in French, with the Author's sanction, by HUBERT E. H. JERNINGHAM. 2 vols. 8vo. 24*s.* [*Nearly ready.*

The Life and Letters of Faraday. By Dr. BENCE JONES, Secretary of the Royal Institution. Second Edition, with Portrait and Woodcuts. 2 vols. 8vo. 28*s.*

Faraday as a Discoverer. By JOHN TYNDALL, LL.D. F.R.S. New and Cheaper Edition, with Two Portraits. Fcp. 8vo. price 3*s.* 6*d.*

The Royal Institution: its Founder and its First Professors. By Dr. BENCE JONES, Honorary Secretary. Post 8vo. price 12*s.* 6*d.*

Leaders of Public Opinion in Ireland; Swift, Flood, Grattan, O'Connell. By W. E. H. LECKY, M.A. New Edition, revised and enlarged. Crown 8vo. 7*s.* 6*d.*

A Group of Englishmen (1795 to 1815); Records of the Younger Wedgwoods and their Friends, embracing the History of the Discovery of Photography. By ELIZA METEYARD. 8vo. 16*s.*

Life of the Duke of Wellington. By the Rev. G. R. GLEIG, M.A. Popular Edition, carefully revised; with copious Additions. Crown 8vo. with Portrait, 5*s.*

History of my Religious Opinions. By J. H. NEWMAN, D.D. Being the Substance of Apologia pro Vitâ Suâ. Post 8vo. price 6*s.*

Father Mathew; a Biography. By JOHN FRANCIS MAGUIRE, M.P. Popular Edition, with Portrait. Crown 8vo. 3*s.* 6*d.*

Dictionary of General Biography; containing Concise Memoirs and Notices of the most Eminent Persons of all Countries, from the Earliest Ages to the Present Time. Edited by WILLIAM L. R. CATES. 8vo. price 21*s.*

Letters and Life of Francis Bacon, including all his Occasional Works. Collected and edited, with a Commentary, by J. SPEDDING. VOLS. I. & II. 8vo. 24*s.* VOLS. III. & IV. 24*s.* VOL. V. 12*s.*

Felix Mendelssohn's Letters from *Italy and Switzerland*, and *Letters* from 1833 to 1847, translated by Lady WALLACE. With Portrait. 2 vols. crown 8vo. 5*s.* each.

Memoirs of Sir Henry Havelock, K.C.B. By JOHN CLARK MARSHMAN. People's Edition, with Portrait. Crown 8vo. price 3*s.* 6*d.*

Essays in Ecclesiastical Biography. By the Right Hon. Sir J. STEPHEN, LL.D. Cabinet Edition. Crown 8vo. 7*s.* 6*d.*

Vicissitudes of Families. By Sir J. BERNARD BURKE, C.B. Ulster King of Arms. New Edition, remodelled and enlarged. 2 vols. crown 8vo. 21*s.*

Lives of the Queens of England. By AGNES STRICKLAND. Library Edition, newly revised; with Portraits of every Queen, Autographs, and Vignettes. 8 vols. post 8vo. 7*s.* 6*d.* each.

Maunder's Biographical Treasury. Thirteenth Edition, reconstructed and partly re-written, with above 1,000 additional Memoirs, by W. L. R. CATES. Fcp. 6*s.*

Criticism, Philosophy, Polity, &c.

On Representative Government. By JOHN STUART MILL. Third Edition. 8vo. 9*s.* crown 8vo. 2*s.*

On Liberty. By the same Author. Fourth Edition. Post 8vo. 7*s.* 6*d.* Crown 8vo. 1*s.* 4*d.*

Principles of Political Economy. By the same. Seventh Edition. 2 vols. 8vo. 30*s.* or in 1 vol. crown 8vo. 5*s.*

Utilitarianism. By the same. 4th Edit. 8vo. 5*s.*

Dissertations and Discussions. By the same Author. Second Edition. 3 vols. 8vo. price 36*s.*

Examination of Sir W. Hamilton's Philosophy, and of the principal Philosophical Questions discussed in his Writings. By the same. Third Edition. 8vo. 16*s.*

The Subjection of Women. By JOHN STUART MILL. New Edition. Post 8vo 5*s.*

Analysis of the Phenomena of the Human Mind. By JAMES MILL. A New Edition, with Notes, Illustrative and Critical, by ALEXANDER BAIN, ANDREW FINDLATER, and GEORGE GROTE. Edited, with additional Notes, by JOHN STUART MILL. 2 vols. 8vo. price 28*s.*

The Elements of Political Economy. By HENRY DUNNING MACLEOD, M.A. Barrister-at-Law. 8vo. 16*s.*

A Dictionary of Political Economy; Biographical, Bibliographical, Historical, and Practical. By the same Author. VOL. I. royal 8vo. 30*s.*

A Colonist on the Colonial Question. By JOHN MATHEWS, of Toronto, Canada. Post 8vo. 6*s.*

Lord Bacon's Works, collected and edited by R. L. ELLIS, M.A. J. SPEDDING, M.A. and D. D. HEATH. New and Cheaper Edition. 7 vols. 8vo. price £3 13*s.* 6*d.*

A System of Logic, Ratiocinative and Inductive. By JOHN STUART MILL. Seventh Edition. 2 vols. 8vo. 25*s.*

The Institutes of Justinian; with English Introduction, Translation, and Notes. By T. C. SANDARS, M.A. Barrister-at-Law. New Edition. 8vo. 15*s.*

The Ethics of Aristotle; with Essays and Notes. By Sir A. GRANT, Bart. M.A. LL.D. Second Edition, revised and completed. 2 vols. 8vo. price 28*s.*

The Nicomachean Ethics of Aristotle. Newly translated into English. By R. WILLIAMS, B.A. Fellow and late Lecturer Merton College, Oxford. 8vo. 12*s.*

Bacon's Essays, with Annotations. By R. WHATELY, D.D. late Archbishop of Dublin. Sixth Edition. 8vo. 10*s.* 6*d.*

Elements of Logic. By R. WHATELY, D.D. late Archbishop of Dublin. New Edition. 8vo. 10*s.* 6*d.* crown 8vo. 4*s.* 6*d.*

Elements of Rhetoric. By the same Author. New Edition. 8vo. 10*s.* 6d. Crown 8vo. 4*s.* 6*d.*

English Synonymes. By E. JANE WHATELY. Edited by Archbishop WHATELY. 5th Edition. Fcp. 3*s.*

An Outline of the Necessary Laws of Thought: a Treatise on Pure and Applied Logic. By the Most Rev. W. THOMSON, D.D. Archbishop of York. Ninth Thousand. Crown 8vo. 5*s.* 6*d.*

The Election of Representatives, Parliamentary and Municipal; a Treatise. By THOMAS HARE, Barrister-at-Law. Third Edition, with Additions. Crown 8vo. 6*s.*

Speeches of the Right Hon. Lord MACAULAY, corrected by Himself. People's Edition, crown 8vo. 3*s.* 6*d.*

Lord Macaulay's Speeches on Parliamentary Reform in 1831 and 1832. 16mo. price ONE SHILLING.

Walker's Pronouncing Dictionary of the English Language. Thoroughly revised Editions, by B. H. SMART. 8vo. 12*s.* 16mo. 6*s.*

A Dictionary of the English Language. By R. G. LATHAM, M.A. M.D. F.R.S. Founded on the Dictionary of Dr. S. JOHNSON, as edited by the Rev. H. J. TODD, with numerous Emendations and Additions. 4 vols. 4to. price £7.

Thesaurus of English Words and Phrases, classified and arranged so as to facilitate the expression of Ideas, and assist in Literary Composition. By P. M. ROGET, M.D. New Edition. Crown 8vo. 10*s.* 6*d.*

Three Centuries of English Literature. By CHARLES DUKE YONGE, Regius Professor of Modern History and English Literature in Queen's College, Belfast. Crown 8vo. 7*s.* 6*d.*

Lectures on the Science of Language. By F. MAX MÜLLER, M.A. &c. Foreign Member of the French Institute. Sixth Edition. 2 vols. crown 8vo price 16*s.*

Chapters on Language. By F. W. FARRAR, M.A. F.R.S. Head Master of Marlborough College. Crown 8vo. 8*s.* 6*d.*

Southey's Doctor, complete in One Volume, edited by the Rev. J. W. WARTER, B.D. Square crown 8vo. 12*s.* 6*d.*

Historical and Critical Commentary on the Old Testament; with a New Translation. By M. M. KALISCH, Ph.D Vol. I. *Genesis*, 8vo. 18*s.* or adapted for the General Reader, 12*s.* Vol. II. *Exodus*, 15*s.* or adapted for the General Reader, 12*s.* Vol III. *Leviticus*, Part I. 15*s.* or adapted for the General Reader, 8*s.* Vol. IV. *Leviticus*, Part II. 15*s.* or adapted for the General Reader, 8*s.*

A Hebrew Grammar, with Exercises. By the same. Part I. *Outlines with Exercises*, 8vo. 12*s.* 6*d.* KEY, 5*s.* Part II. *Exceptional Forms and Constructions*, 12*s.* 6*d.*

Manual of English Literature, Historical and Critical: with a Chapter on English Metres. By THOMAS ARNOLD, M.A. Second Edition. Crown 8vo. 7*s.* 6*d.*

A Latin-English Dictionary. By JOHN T. WHITE, D.D. Oxon. and J. E. RIDDLE, M.A. Oxon. Third Edition, revised. 2 vols. 4to. pp. 2,128, price 42*s.*

White's College Latin-English Dictionary (Intermediate Size), abridged from the Parent Work for the use of University Students. Medium 8vo. pp. 1,048, price 18*s.*

White's Junior Student's Complete Latin-English and English-Latin Dictionary. Revised Edition. Square 12mo. pp. 1,058, price 12*s.*

Separately { ENGLISH-LATIN, 5*s.* 6*d.* / LATIN-ENGLISH, 7*s.* 6*d.*

An English-Greek Lexicon, containing all the Greek Words used by Writers of good authority. By C. D. YONGE, B.A. New Edition. 4to. 21*s.*

Mr. Yonge's New Lexicon, English and Greek, abridged from his larger work (as above). Square 12mo. 8*s.* 6*d.*

The Mastery of Languages; or, the Art of Speaking Foreign Tongues Idiomatically. By THOMAS PRENDERGAST, late of the Civil Service at Madras. Second Edition. 8vo. 6*s.*

A Greek-English Lexicon. Compiled by H. G. LIDDELL, D.D. Dean of Christ Church, and R. SCOTT, D.D. Dean of Rochester. Sixth Edition. Crown 4to. price 36*s.*

A Lexicon, Greek and English, abridged for Schools from LIDDELL and SCOTT'S *Greek-English Lexicon.* Fourteenth Edition. Square 12mo. 7*s.* 6*d.*

A Practical Dictionary of the French and English Languages. By Professor LÉON CONTANSEAU, many years French Examiner for Military and Civil Appointments, &c. New Edition, carefully revised. Post 8vo. 10*s.* 6*d.*

Contanseau's Pocket Dictionary, French and English, abridged from the Practical Dictionary, by the Author. New Edition. 18mo. price 3*s.* 6*d.*

A Sanskrit-English Dictionary. The Sanskrit words printed both in the original Devanagari and in Roman letters; with References to the Best Editions of Sanskrit Authors, and with Etymologies and comparisons of Cognate Words chiefly in Greek, Latin, Gothic, and Anglo-Saxon. Compiled by T. BENFEY. 8vo. 52*s.* 6*d.*

New Practical Dictionary of the German Language; German-English, and English-German. By the Rev. W. L. BLACKLEY, M.A. and Dr. CARL MARTIN FRIEDLÄNDER. Post 8vo. 7*s.* 6*d.*

Miscellaneous Works and *Popular Metaphysics.*

The Essays and Contributions of A. K. H. B. Uniform Editions:—

Recreations of a Country Parson. FIRST and SECOND SERIES, 3*s.* 6*d.* each.

The Commonplace Philosopher in Town and Country. Crown 8vo. 3*s.* 6*d.*

Leisure Hours in Town; Essays Consolatory, Æsthetical, Moral, Social, and Domestic. Crown 8vo. 3*s.* 6*d.*

The Autumn Holidays of a Country Parson. Crown 8vo. 3*s.* 6*d.*

The Graver Thoughts of a Country Parson. FIRST and SECOND SERIES, crown 8vo. 3*s.* 6*d.* each.

Critical Essays of a Country Parson, selected from Essays contributed to *Fraser's Magazine.* Crown 8vo. 3*s.* 6*d.*

Sunday Afternoons at the Parish Church of a Scottish University City. Crown 8vo. 3*s.* 6*d.*

Lessons of Middle Age, with some Account of various Cities and Men. Crown 8vo. 3*s.* 6*d.*

Counsel and Comfort Spoken from a City Pulpit. Crown 8vo. 3*s.* 6*d.*

Changed Aspects of Unchanged Truths; Memorials of St. Andrews Sundays. Crown 8vo. 3*s.* 6*d.*

Present-Day Thoughts; Memorials of St. Andrews Sundays. Crown 8vo. 3*s.* 6*d.*

Short Studies on Great Subjects. By JAMES ANTHONY FROUDE, M.A. late Fellow of Exeter College, Oxford. 2 vols. 8vo. 24*s.*

Lord Macaulay's Miscellaneous Writings:—

LIBRARY EDITION, 2 vols. 8vo. Portrait, 21*s.*
PEOPLE'S EDITION, 1 vol. crown 8vo. 4*s.* 6*d.*

Lord Macaulay's Miscellaneous Writings and SPEECHES. Student's Edition, in One Volume, crown 8vo. price 6*s.*

The Rev. Sydney Smith's Mis-cellaneous Works, including Peter Plymley's Letters, Articles contributed to the *Edinburgh Review,* Letters to Archdeacon Singleton, and other Miscellaneous Writings. 1 vol. crown 8vo. 6*s.*

The Wit and Wisdom of the Rev. SYDNEY SMITH; a Selection of the most memorable Passages in his Writings and Conversation. Crown 8vo. 3*s.* 6*d.*

The Eclipse of Faith; or, a Visit to a Religious Sceptic. By HENRY ROGERS. Twelfth Edition. Fcp. 8vo. 5*s.*

Defence of the Eclipse of Faith, by its Author. Third Edition. Fcp. 8vo. 3*s.* 6*d.*

Selections from the Correspondence of R. E. H. Greyson. By the same Author. Third Edition. Crown 8vo. 7*s.* 6*d.*

Families of Speech, Four Lectures delivered at the Royal Institution of Great Britain. By the Rev. F. W. FARRAR, M.A. F.R.S. Post 8vo. with 2 Maps, 5*s.* 6*d.*

Chips from a German Workshop; being Essays on the Science of Religion, and on Mythology, Traditions, and Customs. By F. MAX MÜLLER, M.A. &c. Foreign Member of the French Institute. 3 vols. 8vo. £2.

An Introduction to Mental Philosophy, on the Inductive Method. By J. D. MORELL, M.A. LL.D. 8vo. 12*s.*

Elements of Psychology, containing the Analysis of the Intellectual Powers. By the same Author. Post 8vo. 7*s.* 6*d.*

The Secret of Hegel: being the Hegelian System in Origin, Principle, Form, and Matter. By JAMES HUTCHISON STIRLING. 2 vols. 8vo. 28*s.*

Sir William Hamilton; being the Philosophy of Perception: an Analysis. By the same Author. 8vo. 5*s.*

The Senses and the Intellect. By ALEXANDER BAIN, LL.D. Prof. of Logic in the Univ. of Aberdeen. Third Edition. 8vo. 15*s.*

Mental and Moral Science: a Compendium of Psychology and Ethics. By ALEXANDER BAIN, LL.D. Second Edition. Crown 8vo. 10*s.* 6*d.*

The Theory of Practice; an Ethical Inquiry. By SHADWORTH H. HODGSON. 2 vols. 8vo. price 24*s.*

Ueberweg's System of Logic, and History of Logical Doctrines. Translated, with Notes and Appendices, by T. M. LINDSAY, M.A. F.R.S.E. 8vo. price 16*s.*

The Philosophy of Necessity; or, Natural Law as applicable to Mental, Moral, and Social Science. By CHARLES BRAY. Second Edition. 8vo. 9*s.*

A Manual of Anthropology, or Science of Man, based on Modern Research. By the same Author. Crown 8vo. 6*s.*

On Force, its Mental and Moral Correlates. By the same Author. 8vo. 5*s.*

Time and Space; a Metaphysical Essay. By SHADWORTH H. HODGSON. 8vo. price 16*s.*

The Discovery of a New World of Being. By GEORGE THOMSON. Post 8vo. 6*s.*

A Treatise on Human Nature; being an Attempt to Introduce the Experimental Method of Reasoning into Moral Subjects. By DAVID HUME. Edited, with Notes, &c. by T. H. GREEN, Fellow, and T. H. GROSE, late Scholar, of Balliol College, Oxford. [*In the press.*

Essays Moral, Political, and Literary. By DAVID HUME. By the same Editors. [*In the press.*

*** The above will form a new edition of DAVID HUME'S *Philosophical Works*, complete in Four Volumes, but to be had in Two separate Sections as announced.

Astronomy, Meteorology, Popular Geography, &c.

Outlines of Astronomy. By Sir J. F. W. HERSCHEL, Bart. M.A. Eleventh Edition, with 9 Plates and numerous Diagrams. Square crown 8vo. 12*s.*

Schellen's Spectrum Analysis, in its Application to Terrestrial Substances and the Physical Constitution of the Heavenly Bodies. Translated by JANE and C. LASSELL; edited, with Notes, by W. HUGGINS, LL.D. F.R.S. With 13 Plates (6 coloured) and 223 Woodcuts. 8vo. 28*s.*

The Sun; Ruler, Light, Fire, and Life of the Planetary System. By RICHARD A. PROCTOR, B.A. F.R.A.S. With 10 Plates (7 coloured) and 107 Woodcuts. Crown 8vo. price 14*s.*

Saturn and its System. By the same Author. 8vo. with 14 Plates, 14*s.*

Navigation and Nautical Astronomy (Practical, Theoretical, Scientific) for the use of Students and Practical Men. By J. MERRIFIELD, F.R.A.S. and H. EVERS. 8vo. 14*s.*

Celestial Objects for Common Telescopes. By T. W. WEBB, M.A. F.R.A.S. New Edition, revised and enlarged, with Map of the Moon and Woodcuts. 16mo. price 7*s.* 6*d.*

A New Star Atlas, for the Library, the School, and the Observatory, in Twelve Circular Maps (with Two Index Plates). Intended as a Companion to 'Webb's Celestial Objects for Common Telescopes.' With a Letterpress Introduction on the Study of the Stars, illustrated by 9 Diagrams. By RICHARD A. PROCTOR, B.A. Hon. Sec R.A.S. Crown 8vo. 5*s.*

Other Worlds than Ours; the Plurality of Worlds Studied under the Light of Recent Scientific Researches. By R. A. PROCTOR, B.A. F.R.A.S. Second Edition, revised and enlarged; with 14 Illustrations. Crown 8vo. 10*s.* 6*d.*

A General Dictionary of Geography, Descriptive, Physical, Statistical, and Historical; forming a complete Gazetteer of the World. By A. KEITH JOHNSTON, F.R.S.E. New Edition. 8vo. price 31*s.* 6*d.*

Essays on Astronomy. By RICHARD A. PROCTOR, B.A. Hon. Sec. R.A.S. Dedicated, by permission, to the Astronomer-Royal. 8vo. with 10 Plates and 20 Wood Engravings, price 12*s.*

A Manual of Geography, Physical, Industrial, and Political. By W. HUGHES, F.R.G.S. Prof. of Geog. in King's Coll. and in Queen's Coll. Lond. With 6 Maps. Fcp. 7*s.* 6*d.*

Maunder's Treasury of Geography, Physical, Historical, Descriptive, and Political. Edited by W. HUGHES, F.R.G.S. With 7 Maps and 16 Plates. Fcp. 6*s.*

The Public Schools Atlas of Modern Geography. In Thirty-one Maps, exhibiting clearly the more important Physical Features of the Countries delineated, and Noting all the Chief Places of Historical, Commercial, and Social Interest. Edited, with an Introduction, by the Rev. G. BUTLER, M.A. Imperial quarto, price 3*s.* 6*d.* sewed; 5*s.* cloth.

Natural History and *Popular Science.*

Ganot's Elementary Treatise on Physics, Experimental and Applied, for the use of Colleges and Schools. Translated and Edited with the Author's sanction by E. ATKINSON, Ph.D. F.C.S. New Edition, revised and enlarged; with a Coloured Plate and 726 Woodcuts. Post 8vo. 15*s.*

Text-Books of Science, Mechanical and Physical. Edited by T. M. GOODEVE, M.A. The following may now be had, price 3*s.* 6*d.* each:—

1. GOODEVE's Mechanism.
2. BLOXAM's Metals.
3. MILLER's Inorganic Chemistry.
4. GRIFFIN's Algebra and Trigonometry.
5. WATSON's Plane and Solid Geometry.
6. MAXWELL's Theory of Heat.
7. MERRIFIELD's Technical Arithmetic and Mensuration.

Dove's Law of Storms, considered in connexion with the ordinary Movements of the Atmosphere. Translated by R. H. SCOTT, M.A. T.C.D. 8vo. 10*s.* 6*d.*

The Correlation of Physical Forces. By W. R. GROVE, Q.C. V.P.R.S. Fifth Edition, revised, and Augmented by a Discourse on Continuity. 8vo. 10*s.* 6*d.* The *Discourse*, separately, price 2*s.* 6*d.*

Natural Philosophy for General Readers and Young Persons; being a Course of Physics divested of Mathematical Formulæ, expressed in the language of daily life, and illustrated with Explanatory Figures, familiarly elucidating the Principles and Facts. Translated and edited from Ganot's 'Cours de Physique,' with the Author's sanction, by E. ATKINSON, Ph.D. F.C.S. Crown 8vo. with Woodcuts, 7*s.* 6*d.*

Heat a Mode of Motion. By Professor JOHN TYNDALL, LL.D. F.R.S. Fourth Edition. Crown 8vo. with Woodcuts, price 10*s.* 6*d.*

Sound: a Course of Eight Lectures delivered at the Royal Institution of Great Britain. By Professor JOHN TYNDALL, LL.D. F.R.S. New Edition, with Portrait and Woodcuts. Crown 8vo. 9*s.*

Researches on Diamagnetism and Magne-Crystallic Action; including the Question of Diamagnetic Polarity. By Professor TYNDALL. With 6 Plates and many Woodcuts. 8vo. 14*s.*

Notes of a Course of Nine Lectures on Light, delivered at the Royal Institution, A.D. 1869. By Professor TYNDALL. Crown 8vo. 1*s.* sewed, or 1*s.* 6*d.* cloth.

Notes of a Course of Seven Lectures on Electrical Phenomena and Theories, delivered at the Royal Institution, A.D. 1870. By Professor TYNDALL. Crown 8vo. 1*s.* sewed, or 1*s.* 6*d.* cloth.

A Treatise on Electricity, in Theory and Practice. By A. DE LA RIVE, Prof. in the Academy of Geneva. Translated by C. V. WALKER, F.R.S. 3 vols. 8vo. with Woodcuts, £3. 13*s.*

Fragments of Science. By JOHN TYNDALL, LL.D. F.R.S. Third Edition. 8vo. price 14*s.*

Light Science for Leisure Hours; a Series of Familiar Essays on Scientific Subjects, Natural Phenomena, &c. By R. A. PROCTOR, B.A. F.R.A.S. Crown 8vo. price 7*s.* 6*d.*

Light: its Influence on Life and Health. By FORBES WINSLOW, M.D. D.C.L. Oxon. (Hon.) Fcp. 8vo. 6*s*.

Van Der Hoeven's Handbook of ZOOLOGY. Translated from the Second Dutch Edition by the Rev. W. CLARK, M.D. F.R.S. 2 vols. 8vo. with 24 Plates of Figures, 60*s*.

Professor Owen's Lectures on the Comparative Anatomy and Physiology of the Invertebrate Animals. Second Edition, with 235 Woodcuts. 8vo. 21*s*.

The Comparative Anatomy and Physiology of the Vertebrate Animals. By RICHARD OWEN, F.R.S. D.C.L. With 1,472 Woodcuts. 3 vols. 8vo. £3 13*s*. 6*d*.

Kirby and Spence's Introduction to Entomology, or Elements of the Natural History of Insects. Crown 8vo. 5*s*.

Homes without Hands; a Description of the Habitations of Animals, classed according to their Principle of Construction. By Rev. J. G. WOOD, M.A. F.L.S. With about 140 Vignettes on Wood. 8vo. 21*s*.

Strange Dwellings; a Description of the Habitations of Animals, abridged from 'Homes without Hands.' By J. G. WOOD, M.A. F.L.S. With a New Frontispiece and about 60 other Woodcut Illustrations. Crown 8vo. price 7*s*. 6*d*.

Bible Animals; a Description of every Living Creature mentioned in the Scriptures, from the Ape to the Coral. By the Rev. J. G. WOOD, M.A. F.L.S. With about 100 Vignettes on Wood. 8vo. 21*s*.

The Harmonies of Nature and Unity of Creation. By Dr. G. HARTWIG. 8vo. with numerous Illustrations, 18*s*.

The Sea and its Living Wonders. By the same Author. Third Edition, enlarged. 8vo. with many Illustrations, 21*s*.

The Tropical World. By the same Author. With 8 Chromoxylographs and 172 Woodcuts. 8vo. 21*s*.

The Subterranean World. By the same Author. With 3 Maps and about 80 Woodcut Illustrations, including 8 full size of page. 8vo. price 21*s*.

The Polar World: a Popular Description of Man and Nature in the Arctic and Antarctic Regions of the Globe. By the same Author. With 8 Chromoxylographs, 3 Maps, and 85 Woodcuts. 8vo. 21*s*.

Insects at Home; a Popular Account of British Insects, their Structure, Habits, and Transformations. By the Rev. J. G. WOOD, M.A. F.L.S. With upwards of 700 Illustrations engraved on Wood, 1 coloured and 21 full size of page. 8vo. 21*s*.

The Origin of Civilisation and the Primitive Condition of Man; Mental and Social Condition of Savages. By Sir JOHN LUBBOCK, Bart. M.P. F.R.S. Second Edition, revised, with 25 Woodcuts. 8vo. price 16*s*.

The Primitive Inhabitants of Scandinavia. Containing a Description of the Implements, Dwellings, Tombs, and Mode of Living of the Savages in the North of Europe during the Stone Age. By SVEN NILSSON. 8vo. Plates and Woodcuts, 18*s*.

A Familiar History of Birds. By E. STANLEY, D.D. late Lord Bishop of Norwich. Fcp. with Woodcuts, 3*s*. 6*d*.

Maunder's Treasury of Natural History, or Popular Dictionary of Zoology. Revised and corrected by T. S. COBBOLD, M.D. Fcp. with 900 Woodcuts, 6*s*.

The Elements of Botany for Families and Schools. Tenth Edition, revised by THOMAS MOORE, F.L.S. Fcp. with 154 Woodcuts, 2*s*. 6*d*.

The Treasury of Botany, or Popular Dictionary of the Vegetable Kingdom; with which is incorporated a Glossary of Botanical Terms. Edited by J. LINDLEY, F.R.S. and T. MOORE, F.L.S. Pp. 1,274, with 274 Woodcuts and 20 Steel Plates. TWO PARTS, fcp. 8vo. 12*s*.

The Rose Amateur's Guide. By THOMAS RIVERS. New Edition. Fcp. 4*s*.

Loudon's Encyclopædia of Plants; comprising the Specific Character, Description, Culture, History, &c. of all the Plants found in Great Britain. With upwards of 12,000 Woodcuts. 8vo. 42*s*.

Maunder's Scientific and Literary Treasury; a Popular Encyclopædia of Science, Literature, and Art. New Edition, in part rewritten, with above 1,000 new articles, by J. Y. JOHNSON. Fcp. 6*s*.

A Dictionary of Science, Literature, and Art. Fourth Edition, re-edited by the late W. T. BRANDE (the Author) and GEORGE W. COX, M.A. 3 vols. medium 8vo. price 63*s*. cloth.

Chemistry, Medicine, Surgery, and *the Allied Sciences.*

A Dictionary of Chemistry and the Allied Branches of other Sciences. By HENRY WATTS, F.C.S. assisted by eminent Scientific and Practical Chemists. 5 vols. medium 8vo. price £7 3*s.*

Supplement; bringing the Record of Chemical Discovery down to the end of the year 1869; including also several Additions to, and Corrections of, former results which have appeared in 1870 and 1871. By the same Author, assisted by eminent Scientific and Practical Chemists, Contributors to the Original Work. 8vo. 31*s.* 6*d.*

Researches in Molecular Physics by Means of Radiant Heat; a Series of Memoirs collected from the Philosophical Transactions. By JOHN TYNDALL, LL.D. F.R.S. 1 vol. 8vo. [*In the press.*

Elements of Chemistry, Theoretical and Practical. By WILLIAM A. MILLER, M.D. LL.D. Professor of Chemistry, King's College, London. Fourth Edition. 3 vols. 8vo. £3.

PART I. CHEMICAL PHYSICS, 15*s.*
PART II. INORGANIC CHEMISTRY, 21*s.*
PART III. ORGANIC CHEMISTRY, 24*s.*

A Course of Practical Chemistry, for the use of Medical Students. By W. ODLING, M.B. F.R.S. New Edition, with 70 new Woodcuts. Crown 8vo. 7*s.* 6*d.*

Outlines of Chemistry; or, Brief Notes of Chemical Facts. By the same Author. Crown 8vo. 7*s.* 6*d.*

Lectures on Animal Chemistry Delivered at the Royal College of Physicians in 1865. By the same Author. Crown 8vo. 4*s.* 6*d.*

Select Methods in Chemical Analysis, chiefly Inorganic. By WILLIAM CROOKES, F.R.S. With 22 Woodcuts. Crown 8vo. price 12*s.* 6*d.*

Chemical Notes for the Lecture Room. By THOMAS WOOD, F.C.S. 2 vols. crown 8vo. I. on Heat, &c. price 5*s.* II. on the Metals, price 5*s.*

The Diagnosis, Pathology, and Treatment of Diseases of Women; including the Diagnosis of Pregnancy. By GRAILY HEWITT, M.D. &c. President of the Obstetrical Society of London. Second Edition, enlarged; with 116 Woodcuts. 8vo. 24*s.*

On the Surgical Treatment of Children's Diseases. By T. HOLMES, M.A. &c. late Surgeon to the Hospital for Sick Children. Second Edition, with 9 Plates and 112 Woodcuts. 8vo. 21*s.*

Lectures on the Diseases of Infancy and Childhood. By CHARLES WEST, M.D. &c. Fifth Edition. 8vo. 16*s.*

On Some Disorders of the Nervous System in Childhood. Being the Lumleian Lectures delivered before the Royal College of Physicians in March 1871. By CHARLES WEST, M.D. Crown 8vo. 5*s.*

Lectures on the Principles and Practice of Physic. By Sir THOMAS WATSON, Bart. M.D. Physician-in-Ordinary to the Queen. Fifth Edition, thoroughly revised. 2 vols. 8vo. price 36*s.*

Lectures on Surgical Pathology. By Sir JAMES PAGET, Bart. F.R.S. Third Edition, revised and re-edited by the Author and Professor W. TURNER, M.B. 8vo. with 131 Woodcuts, 21*s.*

Cooper's Dictionary of Practical Surgery and Encyclopædia of Surgical Science. New Edition, brought down to the present time. By S. A. LANE, Surgeon to St. Mary's Hospital, &c. assisted by various Eminent Surgeons. VOL. II. 8vo. completing the work. [*In the press.*

On Chronic Bronchitis, especially as connected with Gout, Emphysema, and Diseases of the Heart. By E. HEADLAM GREENHOW, M.D. F.R.C.P. &c. 8vo. 7*s.* 6*d.*

The Climate of the South of France as Suited to Invalids; with Notices of Mediterranean and other Winter Stations. By C. T. WILLIAMS, M.A. M.D. Oxon. Physician to the Hospital for Consumption at Brompton. Second Edition. Crown 8vo. 6*s.*

Pulmonary Consumption; its Nature, Varieties, and Treatment: with an Analysis of One Thousand Cases to exemplify its Duration. By C. J. B. WILLIAMS, M.D. F.R.S. and C. T. WILLIAMS, M.A. M.D. Oxon. Physicians to the Hospital for Consumption at Brompton. Post 8vo. price 10*s.* 6*d.*

Anatomy, Descriptive and Surgical. By HENRY GRAY, F.R.S. With about 410 Woodcuts from Dissections. Fifth Edition, by T. HOLMES, M.A. Cantab. With a New Introduction by the Editor. Royal 8vo. 28*s.*

The House I Live in; or, Popular Illustrations of the Structure and Functions of the Human Body. Edited by T. G. GIRTIN. New Edition, with 25 Woodcuts. 16mo. price 2*s.* 6*d.*

A System of Surgery, Theoretical and Practical, in Treatises by Various Authors. Edited by T. HOLMES, M.A. &c. Surgeon and Lecturer on Surgery at St. George's Hospital, and Surgeon-in-Chief to the Metropolitan Police. Second Edition, thoroughly revised, with numerous Illustrations. 5 vols. 8vo. £5 5*s.*

Clinical Lectures on Diseases of the Liver, Jaundice, and Abdominal Dropsy. By C. MURCHISON, M.D. Physician to the Middlesex Hospital. Post 8vo. with 25 Woodcuts, 10*s.* 6*d.*

Physiological Anatomy and Physiology of Man. By the late R. B. TODD, M.D. F.R.S. and W. BOWMAN, F.R.S. of King's College. With numerous Illustrations. VOL. II. 8vo. 25*s.*

VOL. I. New Edition by Dr. LIONEL S. BEALE, F.R.S. in course of publication, with numerous Illustrations. PARTS I and II. price 7*s.* 6*d.* each.

Outlines of Physiology, Human and Comparative. By JOHN MARSHALL, F.R.C.S. Professor of Surgery in University College, London, and Surgeon to the University College Hospital. 2 vols. crown 8vo. with 122 Woodcuts, 32*s.*

Copland's Dictionary of Practical Medicine, abridged from the larger work, and throughout brought down to the present state of Medical Science. 8vo. 36*s.*

Dr. Pereira's Elements of Materia Medica and Therapeutics, abridged and adapted for the use of Medical and Pharmaceutical Practitioners and Students; and comprising all the Medicines of the British Pharmacopœia, with such others as are frequently ordered in Prescriptions or required by the Physician. Edited by Professor BENTLEY, F.L.S. &c. and by Dr. REDWOOD, F.C.S. &c. With 125 Woodcut Illustrations. 8vo. price 25*s.*

The Fine Arts, and *Illustrated Editions.*

In Fairyland; Pictures from the Elf-World. By RICHARD DOYLE. With a Poem by W. ALLINGHAM. With Sixteen Plates, containing Thirty-six Designs printed in Colours. Folio, 31*s.* 6*d.*

Albert Durer, his Life and Works; including Autobiographical Papers and Complete Catalogues. By WILLIAM B. SCOTT. With Six Etchings by the Author and other Illustrations. 8vo. 16*s.*

Half-Hour Lectures on the His- tory and Practice of the Fine and Ornamental Arts. By. W. B. SCOTT. Second Edition. Crown 8vo. with 50 Woodcut Illustrations, 8*s.* 6*d.*

The Chorale Book for England: the Hymns Translated by Miss C. WINKWORTH; the Tunes arranged by Prof. W. S. BENNETT and OTTO GOLDSCHMIDT. Fcp. 4to. 12*s.* 6*d.*

The New Testament, illustrated with Wood Engravings after the Early Masters chiefly of the Italian School. Crown 4to. 63*s.* cloth, gilt top; or £5 5*s.* morocco.

The Life of Man Symbolised by the Months of the Year in their Seasons and Phases. Text selected by RICHARD PIGOT. 25 Illustrations on Wood from Original Designs by JOHN LEIGHTON, F.S.A. Quarto, 42*s.*

Cats' and Farlie's Moral Em- blems; with Aphorisms, Adages, and Proverbs of all Nations: comprising 121 Illustrations on Wood by J. LEIGHTON, F.S.A. with an appropriate Text by R. PIGOT. Imperial 8vo. 31*s.* 6*d.*

Sacred and Legendary Art. By Mrs. JAMESON. 6 vols. square crown 8vo. price £5 15*s.* 6*d.* as follows:—

Legends of the Saints and Martyrs. New Edition, with 19 Etchings and 187 Woodcuts. 2 vols. price 31*s.* 6*d.*

Legends of the Monastic Orders. New Edition, with 11 Etchings and 88 Woodcuts. 1 vol. price 21*s.*

Legends of the Madonna. New Edition, with 27 Etchings and 165 Woodcuts. 1 vol. price 21*s.*

The History of Our Lord, with that of His Types and Precursors. Completed by Lady EASTLAKE. Revised Edition, with 13 Etchings and 281 Woodcuts. 2 vols. price 42*s.*

Lyra Germanica, the Christian Year. Translated by CATHERINE WINKWORTH, with 125 Illustrations on Wood drawn by J. LEIGHTON, F.S.A. Quarto, 21*s.*

Lyra Germanica. the Christian Life. Translated by CATHERINE WINKWORTH; with about 200 Woodcut Illustrations by J. LEIGHTON, F.S.A. and other Artists. Quarto, 21*s.*

The Useful Arts, Manufactures, &c.

Gwilt's Encyclopædia of Architecture, with above 1,600 Woodcuts. Fifth Edition, with Alterations and considerable Additions, by WYATT PAPWORTH. 8vo. price 52*s.* 6*d.*

A Manual of Architecture: being a Concise History and Explanation of the principal Styles of European Architecture, Ancient, Mediæval, and Renaissance; with their Chief Variations and a Glossary of Technical Terms. By THOMAS MITCHELL. With 150 Woodcuts. Crown 8vo. 10*s.* 6*d.*

History of the Gothic Revival; an Attempt to shew how far the taste for Mediæval Architecture was retained in England during the last two centuries, and has been re-developed in the present. By C. L. EASTLAKE, Architect. With 48 Illustrations (36 full size of page). Imperial 8vo. price 31*s.* 6*d.*

Hints on Household Taste in Furniture, Upholstery, and other Details. By CHARLES L. EASTLAKE, Architect. Second Edition, with about 90 Illustrations. Square crown 8vo. 18*s.*

Lathes and Turning, Simple, Mechanical, and Ornamental. By W. HENRY NORTHCOTT. With about 240 Illustrations on Steel and Wood. 8vo. 18*s.*

Principles of Mechanism, designed for the use of Students in the Universities, and for Engineering Students generally. By R. WILLIS, M.A. F.R.S. &c. Jacksonian Professor in the Univ. of Cambridge. Second Edition; with 374 Woodcuts. 8vo. 18*s.*

Handbook of Practical Telegraphy. By R. S. CULLEY, Memb. Inst. C.E. Engineer-in-Chief of Telegraphs to the Post-Office. Fifth Edition, revised and enlarged; with 118 Woodcuts and 9 Plates. 8vo. price 14*s.*

Ure's Dictionary of Arts, Manufactures, and Mines. Sixth Edition, rewritten and greatly enlarged by ROBERT HUNT, F.R.S. assisted by numerous Contributors. With 2,000 Woodcuts. 3 vols. medium 8vo. £4 14*s.* 6*d.*

Catechism of the Steam Engine, in its various Applications to Mines, Mills, Steam Navigation, Railways, and Agriculture. By JOHN BOURNE, C.E. New Edition, with 89 Woodcuts. Fcp. 6*s.*

Encyclopædia of Civil Engineering, Historical, Theoretical, and Practical. By E. CRESY, C.E. With above 3,000 Woodcuts. 8vo. 42*s.*

Treatise on Mills and Millwork. By Sir W. FAIRBAIRN, Bart. F.R.S. New Edition, with 18 Plates and 322 Woodcuts. 2 vols. 8vo. 32*s.*

Useful Information for Engineers. By the same Author. FIRST, SECOND, and THIRD SERIES, with many Plates and Woodcuts. 3 vols. crown 8vo. 10*s.* 6*d.* each.

The Application of Cast and Wrought Iron to Building Purposes. By the same Author. Fourth Edition, with 6 Plates and 118 Woodcuts. 8vo. 16*s.*

Iron Ship Building, its History and Progress, as comprised in a Series of Experimental Researches. By Sir W. FAIRBAIRN, Bart. F.R.S. With 4 Plates and 130 Woodcuts, 8vo. 18*s.*

A Treatise on the Steam Engine, in its various Applications to Mines, Mills, Steam Navigation, Railways, and Agriculture. By J. BOURNE, C.E. New Edition; with Portrait, 37 Plates, and 546 Woodcuts. 4to. 42*s.*

Recent Improvements in the Steam-Engine. By JOHN BOURNE, C.E. New Edition, including many New Examples, with 124 Woodcuts. Fcp. 8vo. 6*s.*

Bourne's Examples of Modern Steam, Air, and Gas Engines of the most Approved Types, as employed for Pumping, for Driving Machinery, for Locomotion, and for Agriculture, minutely and practically described. In course of publication, to be completed in Twenty-four Parts, price 2*s.* 6*d.* each, forming One Volume, with about 50 Plates and 400 Woodcuts.

A Treatise on the Screw Propeller, Screw Vessels, and Screw Engines, as adapted for purposes of Peace and War. By JOHN BOURNE, C.E. Third Edition, with 54 Plates and 287 Woodcuts. Quarto, price 63*s.*

Handbook of the Steam Engine. By JOHN BOURNE, C.E. forming a KEY to the Author's Catechism of the Steam Engine. With 67 Woodcuts. Fcp. 9*s.*

A History of the Machine-Wrought Hosiery and Lace Manufactures. By WILLIAM FELKIN, F.L.S. F.S.S. With several Illustrations. Royal 8vo. 21*s.*

Mitchell's Manual of Practical Assaying. Third Edition for the most part re-written, with all the recent Discoveries incorporated. By W. CROOKES, F.R.S. With 188 Woodcuts. 8vo. 28*s.*

The Art of Perfumery; the History and Theory of Odours, and the Methods of Extracting the Aromas of Plants. By Dr. PIESSE, F.C.S. Third Edition, with 53 Woodcuts. Crown 8vo. 10*s.* 6*d.*

Bayldon's Art of Valuing Rents and Tillages, and Claims of Tenants upon Quitting Farms, both at Michaelmas and Lady-Day. Eighth Edition, revised by J. C. MORTON. 8vo. 10*s.* 6*d.*

On the Manufacture of Beet-Root Sugar in England and Ireland. By WILLIAM CROOKES, F.R.S. With 11 Woodcuts. 8vo. 8*s.* 6*d.*

Practical Treatise on Metallurgy, adapted from the last German Edition of Professor KERL's *Metallurgy* by W. CROOKES, F.R.S. &c. and E. RÖHRIG, Ph.D. M.E. 3 vols. 8vo. with 625 Woodcuts, price £4 19*s.*

Loudon's Encyclopædia of Agri-culture: comprising the Laying-out, Improvement, and Management of Landed Property, and the Cultivation and Economy of the Productions of Agriculture. With 1,100 Woodcuts. 8vo. 21*s.*

Loudon's Encyclopædia of Gardening: comprising the Theory and Practice of Horticulture, Floriculture, Arboriculture, and Landscape Gardening. With 1,000 Woodcuts. 8vo. 21*s.*

Religious and *Moral Works.*

Authority and Conscience; a Free Debate on the Tendency of Dogmatic Theology and on the Characteristics of Faith. Edited by CONWAY MOREL. Post 8vo. 7*s.* 6*d.*

Reasons of Faith; or, the Order of the Christian Argument Developed and Explained. By the Rev. G. S. DREW, M.A. Second Edition, revised and enlarged. Fcp. 8vo. 6*s.*

Christ the Consoler; a Book of Comfort for the Sick. With a Preface by the Right Rev. the Lord Bishop of Carlisle. Small 8vo. 6*s.*

The True Doctrine of the Eucha-rist. By THOMAS S. L. VOGAN, D.D. Canon and Prebendary of Chichester and Rural Dean. 8vo. 18*s.*

The Student's Compendium of the Book of Common Prayer; being Notes Historical and Explanatory of the Liturgy of the Church of England. By the Rev. H. ALLDEN NASH. Fcp. 8vo. price 2*s.* 6*d.*

Synonyms of the Old Testament, their Bearing on Christian Faith and Practice. By the Rev. ROBERT B. GIRDLESTONE, M.A. 8vo. price 15*s.*

Fundamentals; or, Bases of Belief concerning Man and God: a Handbook of Mental, Moral, and Religious Philosophy. By the Rev. T. GRIFFITH, M.A. 8vo. price 10*s.* 6*d.*

An Introduction to the Theology of the Church of England, in an Exposition of the Thirty-nine Articles. By the Rev. T. P. BOULTBEE, LL.D. Fcp. 8vo. price 6*s.*

Christian Sacerdotalism, viewed from a Layman's standpoint or tried by Holy Scripture and the Early Fathers; with a short Sketch of the State of the Church from the end of the Third to the Reformation in the beginning of the Sixteenth Century. By JOHN JARDINE, M.A. LL.D. 8vo. 8*s.* 6*d.*

Prayers Selected from the Col-lection of the late Baron Bunsen, and Translated by CATHERINE WINKWORTH. PART I. For the Family. PART II. Prayers and Meditations for Private Use. Fcp. 8vo. price 3*s.* 6*d.*

Churches and their Creeds. By the Rev. Sir PHILIP PERRING, Bart. late Scholar of Trin. Coll. Cambridge, and University Medallist. Crown 8vo. 10*s.* 6*d.*

The Truth of the Bible; Evidence from the Mosaic and other Records of Creation; the Origin and Antiquity of Man; the Science of Scripture; and from the Archæology of Different Nations of the Earth. By the Rev. B. W. SAVILE, M.A. Crown 8vo. 7*s.* 6*d.*

Considerations on the Revision of the English New Testament. By C. J. ELLICOTT, D.D. Lord Bishop of Gloucester and Bristol. Post 8vo. price 5*s.* 6*d.*

An Exposition of the 39 Articles, Historical and Doctrinal. By E. HAROLD BROWNE, D.D. Lord Bishop of Ely. Ninth Edition. 8vo. 16*s.*

Examination-Questions on Bishop Browne's Exposition of the Articles. By the Rev. J. GORLE, M.A. Fcp. 3*s.* 6*d.*

Beaten Tracks; or, Pen and Pencil Sketches in Italy. By the Author of 'How we spent the Summer.' With 42 Plates of Sketches. 8vo. 16*s.*

The Alpine Club Map of the Chain of Mont Blanc, from an actual Survey in 1863—1864. By A. ADAMS-REILLY, F.R.G.S. M.A.C. In Chromolithography on extra stout drawing paper 28in. × 17in. price 10*s.* or mounted on canvas in a folding case, 12*s.* 6*d.*

History of Discovery in our Australasian Colonies, Australia, Tasmania, and New Zealand, from the Earliest Date to the Present Day. By WILLIAM HOWITT. 2 vols. 8vo. with 3 Maps, 20*s.*

Visits to Remarkable Places: Old Halls, Battle-Fields, and Scenes illustrative of striking Passages in English History and Poetry. By the same Author. 2 vols. square crown 8vo. with Wood Engravings, 25*s.*

Guide to the Pyrenees, for the use of Mountaineers. By CHARLES PACKE. Second Edition, with Maps, &c. and Appendix. Crown 8vo. 7*s.* 6*d.*

The Alpine Guide. By JOHN BALL, M.R.I.A. late President of the Alpine Club. Post 8vo. with Maps and other Illustrations.

Guide to the Eastern Alps, price 10*s.* 6*d.*

Guide to the Western Alps, including Mont Blanc, Monte Rosa, Zermatt, &c. price 6*s.* 6*d*

Guide to the Central Alps, including all the Oberland District, price 7*s.* 6*d.*

Introduction on Alpine Travelling in general, and on the Geology of the Alps, price 1*s.* Either of the Three Volumes or Parts of the *Alpine Guide* may be had with this INTRODUCTION prefixed, price 1*s.* extra

The Rural Life of England. By WILLIAM HOWITT. Woodcuts by Bewick and Williams. Medium 8vo. 12*s.* 6*d.*

Works of *Fiction.*

Popular Romances of the Middle Ages. By GEORGE W. COX, M.A. Author of 'The Mythology of the Aryan Nations' &c. and EUSTACE HINTON JONES. Crown 8vo. 10*s.* 6*d.*

Hartland Forest; a Legend of North Devon. By Mrs. BRAY, Author of 'The White Hoods,' 'Life of Stothard,' &c. Post 8vo. with Frontispiece, 4*s.* 6*d.*

Novels and Tales. By the Right Hon. BENJAMIN DISRAELI, M.P. Cabinet Editions, complete in Ten Volumes, crown 8vo. price 6*s.* each, as follows:—

LOTHAIR, 6*s.*
CONINGSBY, 6*s.*
SYBIL, 6*s.*
TANCRED, 6*s.*
VENETIA, 6*s.*
ALROY, IXION, &c. 6*s.*
YOUNG DUKE, &c. 6*s.*
VIVIAN GREY, 6*s.*
CONTARINI FLEMING, &c. 6*s.*
HENRIETTA TEMPLE, 6*s.*

A Visit to my Discontented Cousin. Reprinted, with some Additions, from *Fraser's Magazine.* Crown 8vo. price 7*s.* 6*d.*

Stories and Tales. By E. M. SEWELL. Comprising *Amy Herbert*; *Gertrude*; the *Earl's Daughter*; the *Experience of Life*; *Cleve Hall*; *Ivors*; *Katharine Ashton*; *Margaret Percival*; *Laneton Parsonage*; and *Ursula.* The Ten Works complete in Eight Volumes, crown 8vo. bound in leather and contained in a Box, price TWO GUINEAS.

Our Children's Story. By One of their Gossips. By the Author of 'Voyage en Zigzag,' &c. Small 4to. with Sixty Illustrations by the Author, price 10*s.* 6*d.*

Cabinet Edition, in crown 8vo. of Stories and Tales by Miss SEWELL:—

AMY HERBERT, 2*s.* 6*d.*
GERTRUDE, 2*s.* 6*d.*
EARL'S DAUGHTER, 2*s.* 6*d.*
EXPERIENCE of LIFE, 2*s.* 6*d.*
CLEVE HALL, 3*s.* 6*d.*
IVORS, 3*s.* 6*d.*
KATHARINE ASHTON, 3*s.* 6*d.*
MARGARET PERCIVAL, 5*s.*
LANETON PARSONAGE, 3*s.* 6*d.*
URSULA, 4*s.* 6*d.*

A Glimpse of the World. Fcp. 7*s.* 6*d.*

Journal of a Home Life. Post 8vo. 9*s.* 6*d.*

After Life; a Sequel to the 'Journal of a Home Life.' Post 8vo. 10*s.* 6*d.*

The Giant; a Witch's Story for English Boys. Edited by Miss SEWELL, Author of 'Amy Herbert,' &c. Fcp. 8vo. price 5*s.*

Uncle Peter's Fairy Tale for the XIXth Century. By the same Author and Editor. Fcp. 8vo. 7*s.* 6*d.*

Wonderful Stories from Norway, Sweden, and Iceland. Adapted and arranged by JULIA GODDARD. With an Introductory Essay by the Rev. G. W. Cox, M.A. and Six Illustrations. Square post 8vo. 6*s.*

The Modern Novelist's Library. Each Work, in crown 8vo. complete in a Single Volume:—

MELVILLE'S GLADIATORS, 2*s.* boards; 2*s.* 6*d.* cloth.

——— GOOD FOR NOTHING, 2*s.* boards; 2*s.* 6*d.* cloth.

——— HOLMBY HOUSE, 2*s.* boards; 2*s.* 6*d.* cloth.

——— INTERPRETER, 2*s.* boards; 2*s.* 6*d.* cloth.

——— KATE COVENTRY, 2*s.* boards; 2*s.* 6*d.* cloth.

——— QUEEN'S MARIES, 2*s.* boards; 2*s.* 6*d.* cloth.

TROLLOPE'S WARDEN, 1*s.* 6*d.* boards; 2*s.* cloth.

——— BARCHESTER TOWERS, 2*s.* boards; 2*s.* 6*d.* cloth.

BRAMLEY-MOORE'S SIX SISTERS OF THE VALLEYS, 2*s.* boards; 2*s.* 6*d.* cloth.

Ierne; a Tale. By W. STEUART TRENCH, Author of 'Realities of Irish Life.' Second Edition. 2 vols. post 8vo. price 21*s.*

The Home at Heatherbrae; a Tale. By the Author of 'Everley.' Fcp. 8vo. price 5*s.*

Becker's Gallus; or, Roman Scenes of the Time of Augustus. Post 8vo. 7*s.* 6*d.*

Becker's Charicles: Illustrative of Private Life of the Ancient Greeks. Post 8vo. 7*s.* 6*d.*

Tales of Ancient Greece. By GEORGE W. COX, M.A. late Scholar of Trin. Coll. Oxford. Crown 8vo. price 6*s.* 6*d.*

Cabinet Edition of Novels and Tales by G. J. WHYTE MELVILLE:—

DIGBY GRAND, 5*s.*	HOLMBY HOUSE, 5*s.*
KATE COVENTRY, 5*s.*	QUEEN'S MARIES, 6*s.*
GENERAL BOUNCE, 5*s.*	THE INTERPRETER, 5*s.*

GOOD FOR NOTHING, price 6*s.*

Poetry and *The Drama.*

A Vision of Creation; a Poem. With an Introduction, Geological and Critical. By CUTHBERT COLLINGWOOD, M.A. and B.M. Oxon. F.L.S. &c. Author of 'Rambles of a Naturalist on the Shores and Waters of the China Seas' &c. Crown 8vo. price 7*s.* 6*d.*

The Story of Gautama Buddha and his Creed; an Epic. By RICHARD PHILLIPS. Square fcp. 8vo. 6*s.*

Ballads and Lyrics of Old France; with other Poems. By A. LANG, Fellow of Merton College, Oxford. Square fcp. 8vo. price 5*s.*

Songs of the Sierras. By JOAQUIN MILLER. New Edition, revised by the Author. Fcp. 8vo. 6*s.*

Thomas Moore's Poetical Works, with the Author's last Copyright Additions:—

Shamrock Edition, price 3*s.* 6*d.*
People's Edition, square cr. 8vo. 10*s.* 6*d.*
Library Edition, Portrait & Vignette, 14*s.*

Moore's Lalla Rookh, Tenniel's Edition, with 68 Wood Engravings from Original Drawings and other Illustrations. Fcp. 4to. 21*s.*

Moore's Irish Melodies, Maclise's Edition, with 161 Steel Plates from Original Drawings. Super-royal 8vo. 31*s.* 6*d.*

Miniature Edition of Moore's Irish *Melodies*, with Maclise's Illustrations (as above), reduced in Lithography. Imp. 16mo. 10*s.* 6*d.*

Southey's Poetical Works, with the Author's last Corrections and copyright Additions. Library Edition. Medium 8vo. with Portrait and Vignette, 14*s.*

Lays of Ancient Rome; with *Ivry* and the *Armada*. By the Right Hon. LORD MACAULAY. 16mo. 4*s.* 6*d.*

Lord Macaulay's Lays of Ancient Rome. With 90 Illustrations on Wood, Original and from the Antique, from Drawings by G. SCHARF. Fcp. 4to. 21*s.*

Miniature Edition of Lord Macaulay's Lays of Ancient Rome, with Scharf's Illustrations (as above) reduced in Lithography. Imp. 16mo. 10*s.* 6*d.*

Goldsmith's Poetical Works, Illustrated with Wood Engravings from Designs by Members of the ETCHING CLUB. Imp. 16mo. 7*s.* 6*d.*

John Jerningham's Journal. Fcp. 8vo. price 3*s.* 6*d.*

The Mad War Planet, and other Poems. By WILLIAM HOWITT, Author of 'Visits to Remarkable Places,' &c. Fcp. 8vo. price 5*s.*

Eucharis; a Poem. By F. REGINALD STATHAM (Francis Reynolds), Author of 'Alice Rushton, and other Poems' and 'Glaphyra, and other Poems.' Fcp. 8vo. price 3*s.* 6*d.*

Poems of Bygone Years. Edited by the Author of 'Amy Herbert.' Fcp. 8vo. 5*s.*

Poems. By JEAN INGELOW. Fifteenth Edition. Fcp. 8vo. 5*s.*

Poems by Jean Ingelow. With nearly 100 Illustrations by Eminent Artists, engraved on Wood by DALZIEL Brothers. Fcp. 4to. 21*s.*

A Story of Doom, and other Poems. By JEAN INGELOW. Third Edition. Fcp. price 5*s.*

Bowdler's Family Shakspeare, cheaper Genuine Edition, complete in 1 vol. large type, with 36 Woodcut Illustrations, price 14*s.* or in 6 pocket vols. 3*s.* 6*d.* each.

Horatii Opera, Library Edition, with Copious English Notes, Marginal References and Various Readings. Edited by the Rev. J. E. YONGE, M.A. 8vo. 21*s.*

The Æneid of Virgil Translated into English Verse. By JOHN CONINGTON, M.A. Corpus Professor of Latin in the University of Oxford. New Edition. Crown 8vo. 9*s.*

Works by Edward Yardley:—

FANTASTIC STORIES, fcp. 3*s.* 6*d.*

MELUSINE *and other* POEMS, fcp. 5*s.*

HORACE'S ODES *translated into* ENGLISH VERSE, crown 8vo. 6*s.*

SUPPLEMENTARY STORIES *and* POEMS, fcp. 3*s.* 6*d.*

Rural Sports &c.

Encyclopædia of Rural Sports; a Complete Account, Historical, Practical, and Descriptive, of Hunting, Shooting, Fishing, Racing, &c. By D. P. BLAINE. With above 600 Woodcuts (20 from Designs by JOHN LEECH). 8vo. 21*s.*

The Dead Shot, or Sportsman's Complete Guide; a Treatise on the Use of the Gun, Dog-breaking, Pigeon-shooting, &c. By MARKSMAN. Fcp. with Plates, 5*s.*

A Book on Angling: being a Complete Treatise on the Art of Angling in every branch, including full Illustrated Lists of Salmon Flies. By FRANCIS FRANCIS. New Edition, with Portrait and 15 other Plates, plain and coloured. Post 8vo. 15*s.*

Wilcocks's Sea-Fisherman: comprising the Chief Methods of Hook and Line Fishing in the British and other Seas, a glance at Nets, and remarks on Boats and Boating. Second Edition, enlarged, with 80 Woodcuts. Post 8vo. 12*s.* 6*d.*

The Fly-Fisher's Entomology. By ALFRED RONALDS. With coloured Representations of the Natural and Artificial Insect. Sixth Edition, with 20 coloured Plates. 8vo. 14*s.*

The Book of the Roach. By GREVILLE FENNELL, of 'The Field.' Fcp. 8vo. price 2*s.* 6*d.*

Horses and Stables. By Colonel F. FITZWYGRAM, XV. the King's Hussars. With 24 Plates of Woodcut Illustrations, containing very numerous Figures. 8vo. 15*s.*

The Ox, his Diseases and their Treatment; with an Essay on Parturition in the Cow. By J. R. DOBSON, M.R.C.V.S. Crown 8vo. with Illustrations, 7*s.* 6*d.*

A Treatise on Horse-shoeing and Lameness. By JOSEPH GAMGEE, Veterinary Surgeon, formerly Lecturer on the Principles and Practice of Farriery in the New Veterinary College, Edinburgh. 8vo., with 55 Woodcuts, 15*s.*

Blaine's Veterinary Art: a Treatise on the Anatomy, Physiology, and Curative Treatment of the Diseases of the Horse, Neat Cattle, and Sheep. Seventh Edition, revised and enlarged by C. STEEL. 8vo. with Plates and Woodcuts, 18*s.*

Youatt on the Horse. Revised and enlarged by W. WATSON, M.R.C.V.S. 8vo. with numerous Woodcuts, 12*s.* 6*d.*

Youatt on the Dog. (By the same Author.) 8vo. with numerous Woodcuts, 6*s.*

The Dog in Health and Disease By STONEHENGE. With 70 Wood Engravings. New Edition. Square crown 8vo. 10*s.* 6*d.*

The Greyhound. By the same Author. Revised Edition, with 24 Portraits of Greyhounds. Square crown 8vo. 10*s.* 6*d.*

The Horse's Foot, and how to keep it Sound. By W. MILES, Esq. Ninth Edition, with Illustrations. Imp. 8vo. 12*s.* 6*d.*

A Plain Treatise on Horse-shoeing. By the same Author. Sixth Edition, post 8vo. with Illustrations, 2*s.* 6*d.*

Stables and Stable Fittings. By the same. Imp. 8vo. with 13 Plates, 15*s.*

Remarks on Horses' Teeth, addressed to Purchasers. By the same. Post 8vo. 1*s.* 6*d*

Works of Utility and *General Information.*

The Law of Nations Considered as Independent Political Communities. By Sir TRAVERS TWISS, D.C.L. 2 vols. 8vo. 30*s.* or separately, PART I. *Peace*, 12*s.* PART II. *War*, 18*s.*

The Theory and Practice of Banking. By HENRY DUNNING MACLEOD, M.A. Barrister-at-Law. Second Edition. entirely remodelled. 2 vols. 8vo. 30*s.*

M'Culloch's Dictionary, Prac-tical, Theoretical, and Historical, of Commerce and Commercial Navigation. New Edition, revised throughout and corrected to the Present Time; with a Biographical Notice of the Author. Edited by H. G. REID, Secretary to Mr. M'Culloch for many years. 8vo. price 63*s.* cloth.

Modern Cookery for Private Families, reduced to a System of Easy Practice in a Series of carefully-tested Receipts. By ELIZA ACTON. Newly revised and enlarged; with 8 Plates, Figures, and 150 Woodcuts. Fcp. 6*s.*

A Practical Treatise on Brewing; with Formulæ for Public Brewers, and Instructions for Private Families. By W. BLACK. Fifth Edition. 8vo. 10*s.* 6*d.*

Maunder's Treasury of Know-ledge and Library of Reference: comprising an English Dictionary and Grammar, Universal Gazetteer, Classical Dictionary, Chronology, Law Dictionary, Synopsis of the Peerage, Useful Tables, &c. Fcp. 6*s.*

Chess Openings. By F. W. LONGMAN, Balliol College, Oxford. Fcp. 8vo. 2*s.* 6*d.*

Hints to Mothers on the Manage-ment of their Health during the Period of Pregnancy and in the Lying-in Room. By THOMAS BULL, M.D. Fcp. 5*s.*

The Maternal Management of Children in Health and Disease. By THOMAS BULL, M.D. Fcp. 5*s.*

The Cabinet Lawyer; a Popular Digest of the Laws of England, Civil, Criminal, and Constitutional. Twenty-third Edition, corrected and brought up to the Present Date. Fcp. 8vo. price 7*s.* 6*d.*

How to Nurse Sick Children; containing Directions which may be found of service to all who have charge of the Young. By CHARLES WEST, M.D. Second Edition. Fcp. 8vo. 1*s.* 6*d.*

Notes on Lying-In Institutions; with a Proposal for Organising an Institution for Training Midwives and Midwifery Nurses. By FLORENCE NIGHTINGALE. With 5 Plans. Square crown 8vo. 7*s.* 6*d.*

Notes on Hospitals. By FLORENCE NIGHTINGALE. Third Edition, enlarged; with 13 Plans. Post 4to. 18*s.*

Collieries and Colliers: a Handbook of the Law and Leading Cases relating thereto. By J. C. FOWLER, Barrister. Second Edition. Fcp. 8vo. 7*s.* 6*d.*

Coulthart's Decimal Interest Tables at Twenty-four Different Rates not exceeding Five per Cent. Calculated for the use of Bankers. To which are added Commission Tables at One-eighth and One-fourth per Cent. 8vo. 15*s.*

Willich's Popular Tables for Ascertaining the Value of Lifehold, Leasehold, and Church Property, Renewal Fines, &c.; the Public Funds; Annual Average Price and Interest on Consols from 1731 to 1867; Chemical, Geographical, Astronomical, Trigonometrical Tables, &c. Post 8vo. 10*s.*

Pewtner's Comprehensive Speci-fier; a Guide to the Practical Specification of every kind of Building-Artificer's Work: with Forms of Building Conditions and Agreements, an Appendix, Foot-Notes, and Index. Edited by W. YOUNG, Architect. Crown 8vo. 6*s.*

Periodical Publications.

The Edinburgh Review, or Cri-tical Journal, published Quarterly in January, April, July, and October. 8vo. price 6*s.* each Number.

Notes on Books: An Analysis of the Works published during each Quarter by Messrs. LONGMANS & Co. The object is to enable Bookbuyers to obtain such information regarding the various works as is usually afforded by tables of contents and explanatory prefaces. 4to. Quarterly. *Gratis.*

Fraser's Magazine. Edited by JAMES ANTHONY FROUDE, M.A. New Series, published on the 1st of each Month. 8vo. price 2*s.* 6*d.* each Number.

The Alpine Journal; A Record of Mountain Adventure and Scientific Observation. By Members of the Alpine Club. Edited by LESLIE STEPHEN. Published Quarterly, May 31, Aug. 31, Nov. 30, Feb. 28. 8vo. price 1*s.* 6*d.* each Number.

Knowledge for the *Young*.

The Stepping Stone to Knowledge: Containing upwards of Seven Hundred Questions and Answers on Miscellaneous Subjects, adapted to the capacity of Infant Minds. By a MOTHER. New Edition, enlarged and improved. 18mo. price 1*s*.

The Stepping Stone to Geography: Containing several Hundred Questions and Answers on Geographical Subjects. 18mo. 1*s*.

The Stepping Stone to English History: Containing several Hundred Questions and Answers on the History of England. 1*s*.

The Stepping Stone to Bible Knowledge: Containing several Hundred Questions and Answers on the Old and New Testaments. 18mo. 1*s*.

The Stepping Stone to Biography: Containing several Hundred Questions and Answers on the Lives of Eminent Men and Women. 18mo. 1*s*.

Second Series of the Stepping Stone to Knowledge: containing upwards of Eight Hundred Questions and Answers on Miscellaneous Subjects not contained in the FIRST SERIES. 18mo. 1*s*.

The Stepping Stone to French Pronunciation and Conversation: Containing several Hundred Questions and Answers. By Mr. P. SADLER. 18mo. 1*s*.

The Stepping Stone to English Grammar: Containing several Hundred Questions and Answers on English Grammar. By Mr. P. SADLER. 18mo. 1*s*.

The Stepping Stone to Natural History: VERTEBRATE or BACKBONED ANIMALS. PART I. *Mammalia*; PART II. *Birds, Reptiles, Fishes*. 18mo. 1*s*. each Part.

INDEX.

ACTON'S Modern Cookery..... 19
ALLIES on Formation of Christendom 14
ALLEN'S Discourses of Chrysostom 14
Alpine Guide (The) 16
—— Journal 19
ARNOLD'S Manual of English Literature .. 5
Authority and Conscience 13
Autumn Holidays of a Country Parson 6
AYRE'S Treasury of Bible Knowledge..... 14

BACON'S Essays by WHATELY 5
—— Life and Letters, by SPEDDING .. 4
—— Works..... 5
BAIN'S Mental and Moral Science 7
—— on the Senses and Intellect 7
BALL'S Guide to the Central Alps..... 16
——Guide to the Western Alps 16
——Guide to the Eastern Alps 16
BAYLDON'S Rents and Tillages 13
Beaten Tracks 16
BECKER'S *Charicles* and *Gallus* 17
BENFEY'S Sanskrit-English Dictionary 6
BERNARD on British Neutrality 1
BISSET on Historical Truth..... 3
BLACK'S Treatise on Brewing..... 19
BLACKLEY'S German-English Dictionary .. 6
BLAINE'S Rural Sports 18
——Veterinary Art 18
BLOXAM'S Metals..... 8
BOOTH'S Saint-Simon..... 3
BOULTBEE on 39 Articles 13
BOURNE on Screw Propeller 12
——'s Catechism of the Steam Engine.. 12
—— Examples of Modern Engines .. 12
—— Handbook of Steam Engine 12
—— Treatise on the Steam Engine.... 12
—— Improvements in the same 12
BOWDLER'S Family SHAKSPEARE..... 18
BOYD'S Reminiscences 3
BRAMLEY-MOORE'S Six Sisters of the Valley 17
BRANDE'S Dictionary of Science, Literature, and Art..... 9
BRAY'S Manual of Anthropology 7
——Philosophy of Necessity 7
——On Force 7
——(Mrs.) Hartland Forest..... 16
BROWNE'S Exposition of the 39 Articles.... 13
BRUNEL'S Life of BRUNEL 3
BUCKLE'S History of Civilisation 1
BULL'S Hints to Mothers 19
—— Maternal Management of Children.. 19
BUNSEN'S God in History..... 3
—— Prayers 13
BURKE'S Vicissitudes of Families 4
BURTON'S Christian Church 3

Cabinet Lawyer..... 19
CAMPBELL'S Norway 15
CARNOTA'S Memoirs of Pombal 3
CATES'S Biographical Dictionary 4
—— and WOODWARD'S Encyclopœdia 2
CATS and FARLIE'S Moral Emblems 11
Changed Aspects of Unchanged Truths 6
CHESNEY'S Indian Polity 2
—— Waterloo Campaign 2
Chorale Book for England 11
Christ the Consoler..... 13
CLOUGH'S Lives from Plutarch 2
COLENSO (Bishop) on Pentateuch and Book of Joshua..... 14
COLLINGWOOD'S Vision of Creation 17
Commonplace Philosopher in Town and Country 6
CONINGTON'S Translation of Virgil's Æneid 18
CONTANSEAU'S Two French Dictionaries .. 6
CONYBEARE and HOWSON'S Life and Epistles of St. Paul 14
COOPER'S Surgical Dictionary..... 10
COPLAND'S Dictionary of Practical Medicine 11
COULTHART'S Decimal Interest Tables 19
Counsel and Comfort from a City Pulpit .. 6
Cox's (G. W.) Aryan Mythology 3
—— Tale of the Great Persian War 2
—— Tales of Ancient Greece 17
——and JONES'S Popular Romances..... 16
CRESY'S Encyclopædia of Civil Engineering 12
Critical Essays of a Country Parson..... 6
CROOKES on Beet-Root Sugar..... 13
——'s Chemical Analysis..... 10
CULLEY'S Handbook of Telegraphy 12
CUSACK'S Student's History of Ireland 2

D'AUBIGNÉ'S History of the Reformation in the time of CALVIN .....
DAVIDSON'S Introduction to New Testament 14
Dead Shot (The), by MARKSMAN 18
DE LA RIVE'S Treatise on Electricity 8
DENISON'S Vice-Regal Life 1
DISRAELI'S Lord George Bentinck 3
—— Novels and Tales 16
DOBSON on the Ox 18
DOVE'S Law of Storms 8
DOYLE'S Fairyland 11
DREW'S Reasons for Faith 13
DYER'S City of Rome 2

EASTLAKE'S Gothic Revival 12
—— Hints on Household Taste 12
Edinburgh Review 19
Elements of Botany 9

ELLICOTT on New Testament Revision.... 13
———'s Commentary on Ephesians 14
——————— Galatians 14
——————— Pastoral Epist. 14
——————— Philippians,&c. 14
——————— Thessalonians 14
———'s Lectures on Life of Christ 14
EWALD'S History of Israel 14

FAIRBAIRN'S Application of Cast and Wrought Iron to Building 12
——— Information for Engineers 12
——— Treatise on Mills and Millwork 12
——— Iron Shipbuilding 12
FARADAY'S Life and Letters 4
FARRAR'S Chapters on Language 5
——— Families of Speech 7
FELKIN on Hosiery & Lace Manufactures.. 12
FENNEL'S Book of the Roach 18
FITZWYGRAM on Horses and Stables 18
FOWLER'S Collieries and Colliers 19
FRANCIS'S Fishing Book 18
FRASER'S Magazine..... 19
FRESHFIELD'S Travels in the Caucasus 15
FROUDE'S History of England 1
——— Short Studies 6

GAMGEE on Horse-Shoeing 18
GANOT'S Elementary Physics 8
——— Natural Philosophy 8
GIANT (The) 16
GILBERT'S Cadore 15
——— and CHURCHILL'S Dolomites 15
GIRDLESTONE'S Bible Synonyms 13
GIRTIN'S House I Live In 10
GLEDSTONE'S Life of WHITEFIELD 4
GODDARD'S Wonderful Stories 16
GOLDSMITH'S Poems, Illustrated 17
GOODEVE'S Mechanism..... 8
GRAHAM'S Autobiography of MILTON..... 3
——— View of Literature and Art 2
GRANT'S Ethics of Aristotle..... 5
——— Home Politics..... 2
Graver Thoughts of a Country Parson..... 6
Gray's Anatomy..... 10
GREENHOW on Bronchitis 10
GRIFFIN'S Algebra and Trigonometry 8
GRIFFITH'S Fundamentals 13
GROVE on Correlation of Physical Forces .. 8
GURNEY'S Chapters of French History 2
GWILT'S Encyclopædia of Architecture 12

HAMPDEN'S (Bishop) Memorials 3
Hare on Election of Representatives 5
HARTWIG'S Harmonies of Nature..... 9
——— Polar World 9
——— Sea and its Living Wonders.... 9
——— Subterranean World 9
——— Tropical World..... 9
HERSCHEL'S Outlines of Astronomy..... 7
HEWITT on the Diseases of Women 10
HODGSON'S Time and Space..... 7
——— Theory of Practice 7
HOLLAND'S Recollections..... 3
HOLMES'S Surgical Treatment of Children.. 10
——— System of Surgery 11
Home (The) at Heatherbrae 17

HORNE'S Introduction to the Scriptures .. 14
How we Spent the Summer..... 15
HOWITT'S Australian Discovery..... 16
——— Mad War Planet..... 17
——— Rural Life of England 16
——— Visits to Remarkable Places 16
HÜBNER'S Pope Sixtus 4
HUGHES'S Manual of Geography 8
HUME'S Essays 7
——— Treatise on Human Nature..... 7

IHNE'S History of Rome 2
INGELOW'S Poems 18
——— Story of Doom 18

JAMESON'S Legends of Saints and Martyrs.. 11
——— Legends of the Madonna 11
——— Legends of the Monastic Orders 11
——— Legends of the Saviour..... 11
JARDINE'S Christian Sacredotalism 13
JOHN JERNINGHAM'S Journal 17
JOHNSTON'S Geographical Dictionary 8
JONES'S Royal Institution 4

KALISCH'S Commentary on the Bible..... 5
——— Hebrew Grammar..... 5
KEITH on Destiny of the World..... 14
——— Fulfilment of Prophecy..... 14
KERL'S Metallurgy, by CROOKES and RÖHRIG 13
KIRBY and SPENCE'S Entomology..... 9

LANG'S Ballads and Lyrics 17
LATHAM'S English Dictionary..... 5
LECKY'S History of European Morals 3
——— Rationalism..... 3
——— Leaders of Public Opinion.. 4
Leisure Hours in Town..... 6
Lessons of Middle Age 6
LEWES'S Biographical History of Philosophy 3
LIDDELL and SCOTT'S Greek-English Lexicon 6
——— Abridged ditto 6
Life of Man Symbolised..... 11
LINDLEY and MOORE'S Treasury of Botany 9
LONGMAN'S Edward the Third 1
——— Lectures on History of England 1
——— Chess Openings..... 19
LOUDON'S Encyclopædia of Agriculture 13
——— Gardening 13
——— Plants 9
LUBBOCK'S Origin of Civilisation 9
Lyra Germanica 11, 15

MACAULAY'S (Lord) Essays 3
——— History of England .. 1
——— Lays of Ancient Rome 17
——— Miscellaneous Writings 6
——— Speeches 5
——— Works 1
MACLEOD'S Elements of Political Economy 4
——— Dictionary of Political Economy 4
——— Theory and Practice of Banking 19
McCULLOCH'S Dictionary of Commerce 19

MAGUIRE'S Life of Father Mathew 4
——— PIUS IX..... 14
MALET'S Overthrow of the Germanic Confederation 2
MALLESON'S Recreations of an Indian Official 2
MANNING'S England and Christendom 14
MARSHALL'S Physiology 11
MARSHMAN'S History of India 2
———Life of Havelock 4
MARTINEAU'S Endeavours after the Christian Life 15
MASSINGBERD'S History of the Reformation 3
MATHEW'S on Colonial Questions..... 5
MAUNDER'S Biographical Treasury 4
——— Geographical Treasury 8
——— Historical Treasury 3
——— Scientific and Literary Treasury 9
——— Treasury of Knowledge..... 19
——— Treasury of Natural History .. 9
MAXWELL'S Theory of Heat..... 8
MAY'S Constitutional History of England.. 1
MELVILLE'S Digby Grand..... 17
——— General Bounce 17
——— Gladiators 17
——— Good for Nothing 17
——— Holmby House..... 17
———Interpreter 17
——— Kate Coventry..... 17
——— Queen's Maries 17
MENDELSSOHN'S Letters 4
MERIVALE'S Fall of the Roman Republic .. 2
———— Romans under the Empire 2
MERRIFIELD'S Arithmetic and Mensuration 8
——— and EVERS'S Navigation .. 7
METEYARD'S Group of Englishmen..... 4
MILES on Horse's Foot and Horse Shoeing. 18
——— on Horses' Teeth and Stables 18
MILL (J.) on the Mind 4
MILL (J. S.) on Liberty..... 4
——— Subjection of Women 4
——— on Representative Government 4
——— on Utilitarianism 4
——'s Dissertations and Discussions..... 4
———Political Economy 4
———System of Logic..... 5
———Hamilton's Philosophy 4
MILLER'S Elements of Chemistry 10
——— Inorganic Chemistry 8
——— Hymn Writers 15
——— Songs of the Sierras 17
MITCHELL'S Manual of Architecture 12
——— Manual of Assaying 13
MONSELL'S Beatitudes 15
——— His Presence not his Memory.. 15
——— 'Spiritual Songs' 15
MOORE'S Irish Melodies..... 17
——— Lalla Rookh 17
——— Poetical Works..... 17
MORELL'S Elements of Psychology 7
MORELL'S Mental Philosophy 7
MÜLLER'S (Max) Chips from a German Workshop 7
——— Lectures on the Science of Language..... 5
——— (K. O.) Literature of Ancient Greece 2
MURCHISON on Liver Complaints 11
MURE'S Language and Literature of Greece 2

NASH'S Compendium of the Prayer-Book .. 13
New Testament Illustrated with Wood Engravings from the Old Masters 11
NEWMAN'S History of his Religious Opinions 4
NIGHTINGALE'S Notes on Hospitals 19
——— Lying-In Institutions 19
NILSSON'S Scandinavia 9
NORTHCOTT on Lathes and Turning 12
Notes on Books..... 19

ODLING'S Animal Chemistry 10
——— Course of Practical Chemistry .. 10
——— Outlines of Chemistry 10
O'DRISCOLL'S Memoir of Maclise 3
Our Children's Story 16
OWEN'S Comparative Anatomy and Physiology of Vertebrate Animals 9
——— Lectures on the Invertebrata..... 9

PACKE'S Guide to the Pyrenees 16
PAGET'S Lectures on Surgical Pathology .. 10
PEREIRA'S Elements of Materia Medica.... 11
PERRING'S Churches and Creeds 13
PEWTNER'S Comprehensive Specifier 19
PHILLIPS'S Story of Buddha 17
Pictures in Tyrol 15
PIESSE'S Art of Perfumery 13
PRENDERGAST'S Mastery of Languages 6
PRESCOTT'S Scripture Difficulties..... 14
Present-Day Thoughts, by A. K. H. B. 6
PROCTOR'S Astromomical Essays 8
——— New Star Atlas 7
——— Plurality of Worlds 8
——— Saturn 7
——— Scientific Essays 8
——— Sun..... 7
Public Schools Atlas 8

RAE'S Westward by Rail 15
Recreations of a Country Parson 6
REEVE'S Royal and Republican France.... 2
REICHEL'S See of Rome..... 14
REILLY'S Map of Mont Blanc..... 16
RIVERS'S Rose Amateur's Guide 9
ROGERS'S Correspondence of Greyson 6
——— Eclipse of Faith 6
——— Defence of Faith 6
ROGET'S Thesaurus of English Words and Phrases 5
RONALDS'S Fly-Fisher's Entomology 18
ROSE'S Loyola 14
ROTHSCHILD'S Israelites 14
RUSSELL'S Pau and the Pyrenees..... 15

SANDARS'S Justinian's Institutes 5
SAVILE on Truth of the Bible..... 13
SCHELLEN'S Spectrum Analysis..... 7
SCOTT'S Lectures on the Fine Arts 11
——— Albert Durer..... 11
SEEBOHM'S Oxford Reformers of 1498 2
SEWELL'S After Life 16
——— Glimpse of the World 16
——— History of the Early Church 3
——— Journal of a Home Life 16

SEWELL'S Passing Thoughts on Religion .. 15
——— Poems of Bygone Years 17
——— Preparation for Communion 15
——— Principles of Education 15
——— Readings for Confirmation 15
——— Readings for Lent 15
——— Examination for Confirmation .. 15
——— Stories and Tales 16
——— Thoughts for the Age 15
——— Thoughts for the Holy Week 15
SHORT'S Church History 3
Smart's WALKER'S English Dictionaries .. 5
SMITH'S Paul's Voyage and Shipwreck 14
——— (SYDNEY) Life and Letters 3
——— Miscellaneous Works .. 6
——— Wit and Wisdom 6
SOUTHEY'S Doctor 5
——— Poetical Works..... 17
STANLEY'S History of British Birds..... 9
STATHAM'S Eucharis..... 17
STEPHEN'S Ecclesiastical Biography 4
——— Playground of Europe 15
Stepping-Stone to Knowledge, &c. 20
STIRLING'S Secret of Hegel..... 7
——— Sir WILLIAM HAMILTON..... 7
STONEHENGE on the Dog..... 18
——— on the Greyhound 18
STRICKLAND'S Queens of England 4
Sunday Afternoons at the Parish Church of a Scottish University City 6

TAYLOR'S History of India 2
——— (Jeremy) Works, edited by EDEN 14
——— Text-Books of Science 8
THIRLWALL'S History of Greece 2
THOMSON'S Laws of Thought 5
———New World of Being 7
TODD (A.) on Parliamentary Government .. 1
——— and BOWMAN'S Anatomy and Physiology of Man 11
TRENCH'S Ierne 17
——— Realities of Irish Life 2
TROLLOPE'S Barchester Towers..... 17
——— Warden 17
TWISS'S Law of Nations 19
TYNDALL'S Diamagnetism 8
——— Faraday as a Discoverer..... 4
——— Fragments of Science..... 8
——— Hours of Exercise in the Alps.. 15
——— Lectures on Electricity 8
——— Lectures on Light 8
——— Lectures on Sound 8
——— Heat a Mode of Motion 8
——— Molecular Physics 10

UEBERWEG'S System of Logic 7
Uncle PETER'S Fairy Tale 16
URE'S Dictionary of Arts, Manufactures, and Mines 12

VAN DER HOEVEN'S Handbook of Zoology.. 9
VEREKER'S Sunny South..... 15
Visit to my Discontented Cousin 16
VOGAN'S Doctrine of the Euchrist 13

WALCOTT'S Traditions of Cathedrals 0
WATSON'S Geometry 8
——— Principles and Practice of Physic 10
WATTS'S Dictionary of Chemistry..... 10
WEBB'S Objects for Common Telescopes.... 7
WEBSTER & WILKINSON'S Greek Testament 14
WELLINGTON'S Life, by GLEIG 4
WEST on Children's Diseases 10
——— on Children's Nervous Disorders 10
——— on Nursing Sick Children 19
WHATELY'S English Synonymes 5
——— Logic..... 5
——— Rhetoric..... 5
WHITE and RIDDLE'S Latin Dictionaries .. 5
WILCOCKS'S Sea Fisherman..... 18
WILLIAMS'S Aristotle's Ethics 5
WILLIAMS on Climate of South of France.. 10
——— Consumption..... 10
WILLICH'S Popular Tables 19
WILLIS'S Principles of Mechanism 12
WINSLOW on Light..... 9
WOOD'S (J. G.) Bible Animals..... 9
——— Homes without Hands 9
——— Insects at Home 9
——— Strange Dwellings 9
——— (T.) Chemical Notes 10

YARDLEY'S Poetical Works 18
YONGE'S History of England 1
——— English-Greek Lexicons 6
——— Horace 18
——— Three Centuries of English Literature 5
——— Three Centuries of Modern History 2
YOUATT on the Dog 18
——— on the Horse..... 18

ZELLER'S Socrates 3
——— Stoics, Epicureans, and Sceptics.. 3
Zigzagging amongst Dolomites 15

SPOTTISWOODE AND CO., PRINTERS, NEW-STREET SQUARE, LONDON.

15

BSB Bayerische StaatsBibliothek
MDZ Münchener DigitalisierungsZentrum Digitale Bibliothek

Fletcher, Banister

Model Houses for the Industrial Classes Being a Review of the Defects of existing Model Lodging-Houses, and containing registered Designs for Model Houses from which Buildings have been erected by the Author...

London 1871

A.civ. 35 km
urn:nbn:de:bvb:12-bsb10993465-0